



# Signaling Specifications

Bulletin Numbers 854J, 854K, 855B, 855BS/BM/BL, 855D, 855E, 855F, 855H/HM, 855L, 855P, 855R, 855T, 855W, 855X/XM, 856T

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## Summary of Changes

This publication contains the following new or updated information. This list includes substantive updates only and is not intended to reflect all changes.

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## Overview

Our signaling devices are intended for use in industrial signaling applications. They are designed for fast, flexible, and easy installation to save you time with advanced modular assembly and unparalleled performance and reliability.

Our signaling devices are available in two types:

- Audible Devices
  - general and high-performance electronic horns,
  - panel mount signaling alarms, and
  - hazardous location horns and beacons.
- Visual Devices
  - panel mount xenon strobes,
  - mini square beacons,
  - panel-mount with selectable steady or flashing light indicators,
  - wall-mount signal lights, panel light bars,
  - industrial round beacons, tower lights,
  - stack lights, and
  - panel-mount dual circuit alarms.

# Bulletin 855P Panel-mount Signaling Alarms

This product line includes sounders, status indicator beacons, xenon strobes, and sounders with status indicator combination and dual-circuit alarms. These alarms significantly reduce panel space requirements and installation time. Our panel-mount alarms are rear-securing and fingersafe, which adds a high level of environmental integrity to your panel.

## Panel-mount Sounder



855P - B 10 ME 22  
a b c d

a	
Housing Color	
Code	Description
B	Black

b	
Voltage	
Code	Description
30	12...24V AC/DC
10	120V AC
20	240V AC

c	
Size	
Code	Description
SE	30 mm, fully enclosed, smooth front, 72 dB
SH	30 mm, high output, 80 dB
ME	45 mm
LE	65 mm

d	
Mounting Hole	
Code	Description
22	22.5 mm

## Panel-mount Combined Sounder with LED Beacon



855PC - B 10 ME 3 22  
a b c d e

a	
Housing Color	
Code	Description
B	Black

b	
Voltage	
Code	Description
12	12V AC/DC
24	24V AC/DC
10	120V AC
20	240V AC

c	
Size	
Code	Description
ME	45 mm
LE	65 mm

d	
Lens Color	
Code	Description
3	Green
4	Red
5	Amber
6	Blue
7	Clear
8	Yellow

e	
Mounting Hole	
Code	Description
22	22.5 mm

# Panel-mount Strobe

30 mm



45 mm



65 mm



855PS - B 10 ME 3 22  
 a b c d e

a	
Housing Color	
Code	Description
B	Black

b	
Voltage	
Code	Description
12	12V AC/DC
24	24V AC/DC
10	120V AC
20	240V AC
30	12...24V AC/DC

c	
Size	
Code	Description
SE	30 mm <sup>(1)(2)</sup>
ME	45 mm <sup>(3)(4)</sup>
LE	65 mm <sup>(3)(4)</sup>

d	
Lens Color	
Code	Description
3	Green
4	Red
5	Amber
6	Blue
7	Clear
8	Yellow

e	
Mounting Hole	
Code	Description
22	22.5 mm

- (1) 30 mm units are LED type.
- (2) Only available in 12V AC/DC, 24V AC/DC, 120V AC, or 240V AC.
- (3) 45 mm and 65 mm units are Xenon strobe.
- (4) Only available in 12...24V AC/DC, 120V, or 240V AC.

# Panel-mount Selectable Steady or Flashing LED Beacon

30 mm



45 mm



65 mm



855PB - B 10 ME 3 22  
 a b c d e

a	
Housing Color	
Code	Description
B	Black

b	
Voltage	
Code	Description
12	12V AC/DC
24	24V AC/DC
10	120V AC
20	240V AC

c	
Size	
Code	Description
SE	30 mm
ME	45 mm
LE	65 mm

d	
Lens Color	
Code	Description
3	Green
4	Red
5	Amber
6	Blue
7	Clear
8	Yellow

e	
Mounting Hole	
Code	Description
22	22.5 mm

# Panel-mount Dual-circuit Alarms

Half-lens Illumination



Full-lens Illumination



Combined Sounder with LED Beacon



855PD - B 24 ME F 3 4 22  
 a b c d e f g

a	
Housing Color	
Code	Description
B	Black

b	
Voltage	
Code	Description
12 <sup>(1)</sup>	12V AC/DC
24	24V AC/DC
10	120V AC
20	240V AC

c	
Size	
Code	Description
SE	30 mm <sup>(2)(3)</sup>
ME	45 mm
LE	65 mm

d	
Function	
Code	Description
F	Two-color, full-lens illumination
H	Two-color, half-lens illumination with barrier
C	Combined sounder with LED beacon <sup>(3)</sup>

- (1) Voltage code 12 is only valid for sounder with LED devices.
- (2) 30 mm available in 24V AC/DC only, for 2-color versions.
- (3) The sounder with LED is not available in the 30 mm size.

e	
LED Color <sup>(1)</sup> /Sound	
Code	Description
1	Sound
3	Green
4	Red
5	Amber
6	Blue
7	Clear
8	Yellow

f	
LED Color <sup>(2)</sup>	
Code	Description
3	Green
4	Red
5	Amber <sup>(3)</sup>
6	Blue
7	Clear
8	Yellow <sup>(3)</sup>

g	
Mounting Hole	
Code	Description
22	22.5 mm

- (1) Voltage code 12 is only valid for sounder with LED devices.
- (2) For two-color devices, the first color code that is listed in the catalog number corresponds to the same side as the panel tab found on the housing. For example: Catalog Number 855PD-B24MEH4322 indicates that the red color is on the same side as the panel tab and the green color is on the opposite side as the panel tab.
- (3) The color combination of yellow and amber is not allowed because of their similarity.

## Accessories

Description	Cat. No.
22.5...30.5 mm hole adapter kit	855P-AHA1

## Specifications

Table 1 - Standards and Certifications

Standards Compliance	Certifications
<ul style="list-style-type: none"> <li>EN/IEC 60947-1</li> <li>EN/IEC 60947-5-1</li> <li>UL 508</li> <li>CSA C22.2 No. 14</li> </ul>	<ul style="list-style-type: none"> <li>c-UL-us Listed (File No. E14840, Guides NKCR, NKCR7)</li> <li>CE Marked</li> </ul>

## Panel Sounder and Single-/Dual-circuit Panel Sounder with LED

Table 2 - Technical

Attribute	Detail	
Housing	Base Material	Polycarbonate, black
	Lens	Polycarbonate, red, amber, yellow, green, blue, and clear
Protection class	UL Type 4/4X/13, IP65	
Terminals	Plug-in terminal block, up to 2.5 mm <sup>2</sup> (14 AWG), IP2X	
Operation temperature range	-25...+60 °C (-13...+140 °F)	
Storage temperature range	-25...+85 °C (-13...+185 °F)	
Mounting	Central mounting for bore holes 22 mm or 30.5 mm with hole adapter kit (catalog number 855P-AHA1)	
Mounting nut torque	1.7 N•m (15 lb•in)	

Table 3 - Electrical

Attribute	Sounder			Sounder with Warning Light		
	65 mm	45 mm	30 mm	65 mm	45 mm	
Supply voltage range	12V AC/DC - 50/60 Hz	—	—	±10%	±10%	
	24V AC/DC - 50/60 Hz	—	—	±10%	±10%	
	12...24V AC/DC - 50/60 Hz	8...26V AC/DC	8...26V AC/DC	10...26V AC/DC	—	—
	120V AC - 50/60 Hz	50...140V AC	50...140V AC	80...140V AC	±10%	±10%
	230/240V AC - 50/60 Hz	150...260V AC	150...260V AC	180...260V AC	±10%	±10%
Nominal current – single circuit (dual circuit)	12V AC/DC - 50/60 Hz	—	—	50 mA (62 mA)	35 mA (48 mA)	
	24V AC/DC - 50/60 Hz	57 mA	20 mA	20 mA	73 mA (95 mA)	58 mA (73 mA)
	120V AC - 50/60 Hz	40 mA	40 mA	20 mA	60 mA (52 mA)	40 mA (51 mA)
	230/240V AC - 50/60 Hz	42 mA	42 mA	20 mA	63 mA (52 mA)	42 mA (51 mA)
Turn-on leakage current	≥3 mA	≥3 mA	≥3 mA	≥3 mA	≥3 mA	
Sound level, max (average)	105 dB(A) @ 1 m (3.3 ft)	100 dB(A) @ 1 m (3.3 ft)	SE: 72 dB(A) @ 1 m (3.3 ft) SH: 80 dB(A) @ 1 m (3.3 ft)	103 dB(A) @ 1 m (3.3 ft)	98 dB(A) @ 1 m (3.3 ft)	
Sound level, min	< 85 dB	< 85 dB	—	< 85 dB	< 85 dB	
Sound level adjustment	Stepless	Stepless	—	Stepless	Stepless	
Sound main frequency	3300 Hz	3300 Hz	3500 Hz	3300 Hz	3300 Hz	
Sound types	Continuous	Yes	Yes	Yes	Yes	
	Pulsing <sup>(1)</sup>	Yes	Yes	Yes	Yes	
	Alternating frequency <sup>(1)</sup>	Yes	No	No	Yes	No
Sound selection	Externally by terminal connection					
Weight	65 g (2.3 oz)	35 g (1.2 oz)	25 g (0.9 oz)	85 g (3 oz)	55 g (1.9 oz)	

(1) Single circuit only.

## Panel Strobe and Single/Two Color LED Lights

**Table 4 - Technical**

Attribute		Bulletin 855P
Housing	Base material	Polycarbonate, black
	Lens	Polycarbonate, red, amber, yellow, green, blue, and clear
Protection class		UL Type 4/4X/13, IP2X, IP65
Terminals		Plug-in terminal block, up to 2.5 mm <sup>2</sup> (14 AWG), IP2X fingersafe
Operation temperature range		-25...+60 °C (-13...+140 °F)
Storage temperature range		-25...+85 °C (-13...+185 °F)
Mounting		Central mounting for bore holes 22 mm or 30.5 mm with hole adapter kit (Cat. No. 855P-AHA1)
Mounting nut torque		1.7 N•m (15 lb•in)

**Table 5 - Electrical**

Attribute		LED Beacon – Steady/Flashing			Strobe Light		
		65 mm	45 mm	30 mm	65 mm	45 mm	30 mm
Supply voltage range	12V AC/DC, 50/60 Hz	±10%	±10%	±10%	–	–	±10%
	24V AC/DC, 50/60 Hz	±10%	±10%	±10%	–	–	±10%
	12...24V AC/DC, 50/60 Hz	–	–	–	8...26V AC/DC	8...26V AC/DC	–
	120V AC, 50/60 Hz	±10%	±10%	±10%	±10%	±10%	±10%
	230/240V AC, 50/60 Hz	±10%	±10%	±10%	±10%	±10%	±10%
Nominal current – single circuit (dual circuit)	12V AC/DC, 50/60 Hz	75 mA	60 mA	30 mA	–	–	15 mA
	24V AC/DC, 50/60 Hz	54 mA (full: 71 mA half: 44 mA)	35 mA (full: 46 mA half: 39 mA)	25 mA (full: 28 mA half: 30 mA)	–	–	10 mA
	12...24V AC/DC, 50/60 Hz @ 12V	–	–	–	150 mA	110 mA	–
	12...24V AC/DC, 50/60 Hz @ 24V	–	–	–	140 mA	100 mA	–
	120V AC, 50/60 Hz	25 mA (full: 61 mA half: 41 mA)	25 mA (full: 35 mA half: 35 mA)	20 mA	30 mA	20 mA	10 mA
	230/240V AC, 50/60 Hz	25 mA (full: 61 mA half: 41 mA)	25 mA (full: 35 mA half: 34 mA)	20 mA	20 mA	12 mA	10 mA
Turn-on leakage current		≥3 mA	≥3 mA	≥3 mA	≥3 mA	≥3 mA	≥3 mA
Steady/Flashing light		Externally by terminal connection			–	–	–
Flashing frequency		2 Hz	2 Hz	2 Hz	1.4 Hz (min)	1.4 Hz (min)	1.4 Hz (min)
Light source		LED			Xenon tube		LED
Flash energy		–	–	–	1 J	1.5 J	–
Weight		60 g (2.1 oz)	40 g (1.4 oz)	40 g (1.4 oz)	80 g (2.8 oz)	60 g (2.1 oz)	40 g (1.4 oz)

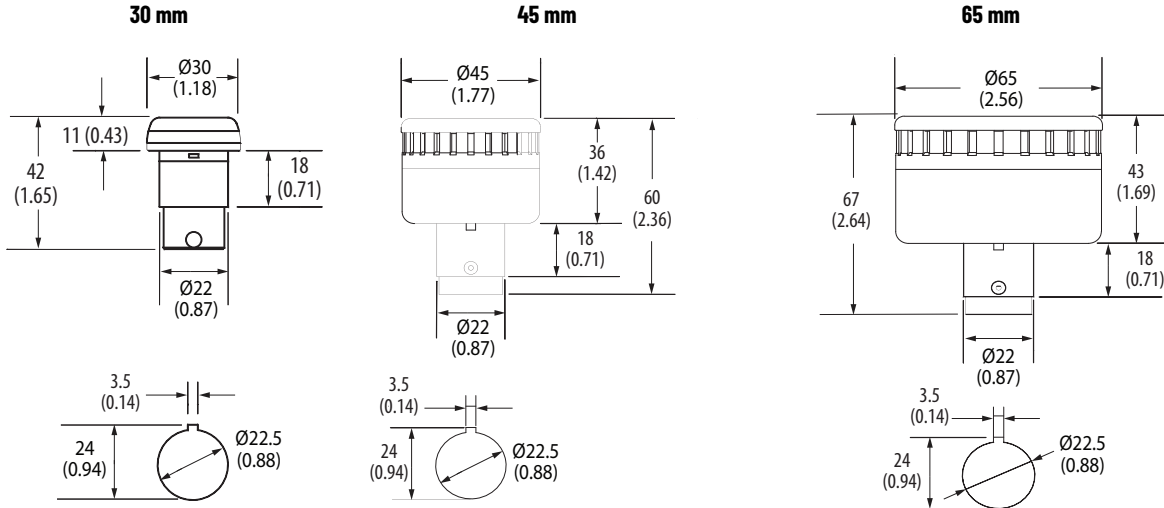
# Approximate Dimensions

Dimensions in millimeters (inches). Dimensions are not intended to be used for manufacturing purposes.

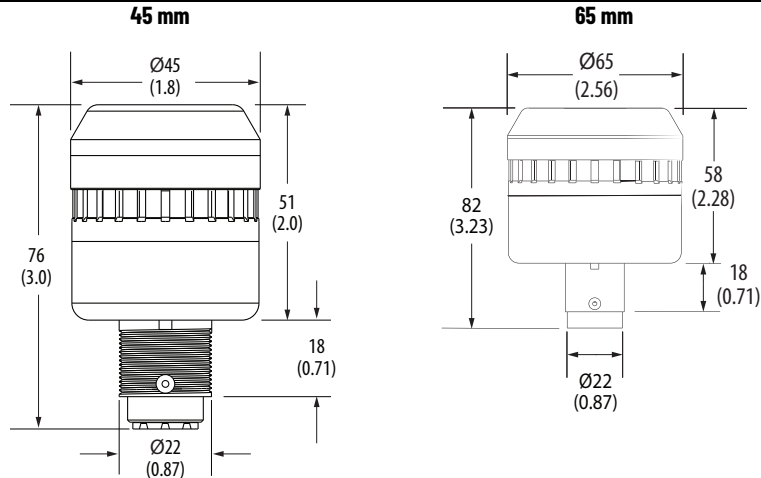
Terminal connector for 30 mm devices adds 14 mm (0.55 in.) to back-of-panel depth

Terminal connector for 45 mm and 65 mm devices adds 9 mm (0.35 in.) to back-of-panel depth

**Sounder:**



**Combined Sounder with LED Beacon:**



**LED:**

30 mm

45 mm

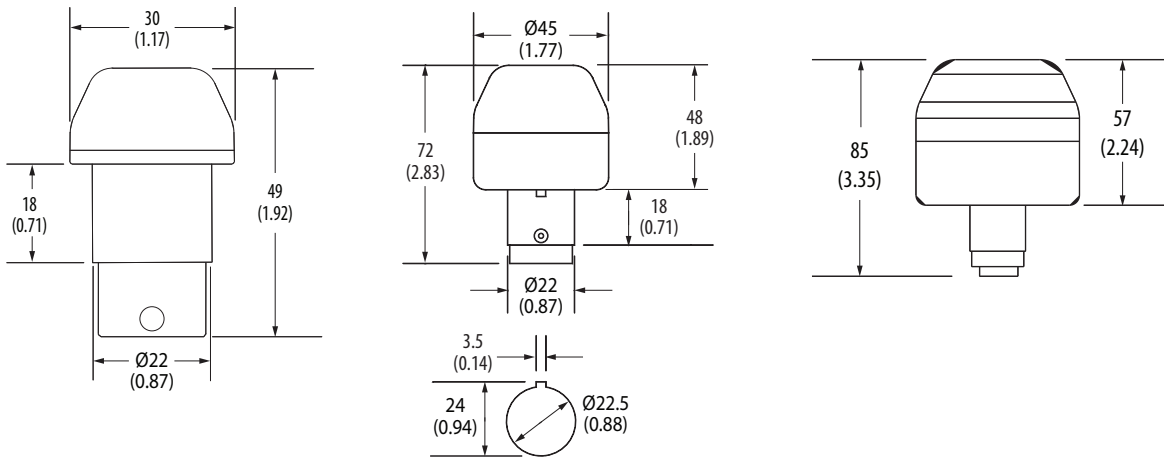
65 mm

**Strobe:**

30 mm

45 mm

65 mm





## Panel Light Bars

These panel light bars are ideal for OEMs and panel builders who want to reduce the quantity of components without the loss of design reliability or functionality. These devices remove your need for a separate fluorescent lamps purchase. They can be left ON continuously due to low power consumption and minimum heat generation of modern status indicator technology.



## Specifications

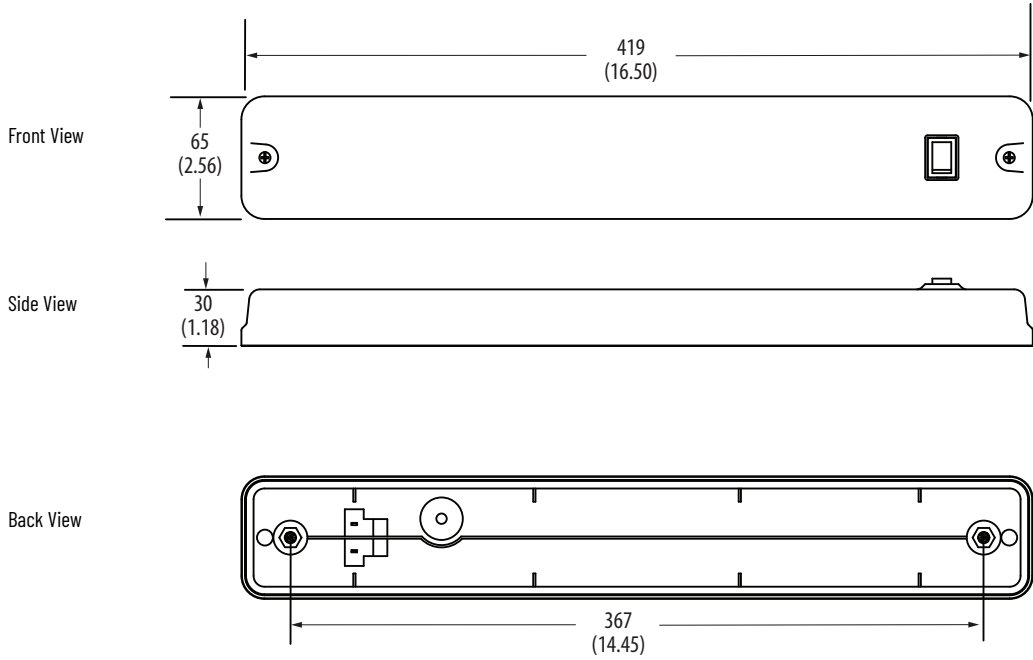
Attribute	855L-NX1 (24...48V with ON/OFF Switch) 855L-NX2 (24...48V - No Switch)	855L-NX3 (110...240V with ON/OFF Switch) 855L-NX4 (110...240V - No Switch)
Nominal Input Voltage	24...48V AC/DC, 50/60 Hz	855L-NX3: 110...240V AC, 50/60 Hz 855L-NX4: 110...240V AC/DC, 50/60 Hz
Input Voltage Limits	17...63V DC 17...53V AC, 50/60 Hz	90...320V DC (855L-NX4 only) 90...250V AC, 50/60 Hz
Nominal Current	~300 mA @ 24V DC/ ~150 mA @ 48V DC	<70 mA @ 120V AC/ <55 mA @ 240V AC
Inrush Current	1 A @ 24V DC, ~2 A @ 48V DC, 25 °C (77 °F)	~3.5 A @ 120V AC/ ~7 A @ 240V AC
Leakage Current Immunity	>8 mA DC	>3 mA AC/ ~1 mA DC
Ingress Protection	855L-NX1: NEMA 1, IP40 855L-NX2: NEMA 1, IP44	855L-NX3: NEMA 1, IP40 855L-NX4: NEMA 1, IP44
Operating Temperature Range	-35...+60 °C (-31...+140 °F)	
Storage Temperature Range	-35...+85 °C (-31...+185 °F)	
Wire Size	22...14 AWG (0.5...2.5 mm <sup>2</sup> )	
Light Beam Angle	~70°	
LED Color	White	
Light Output, min	470 lumens	
Lens Material	Polycarbonate (clear)	
Base Material	Polycarbonate (light gray)	
Mounting Orientation	No restrictions	
Mounting Screws (not provided)	2 X 1/4 in. (M5/ M6)	
Weight	380 g (<1 lb)	
LED MTFB	50,000 hr	

**Table 6 - Standards and Certifications**

Standards Compliance	Certifications
<ul style="list-style-type: none"> <li>EN61000-6-2</li> <li>EN61000-6-3</li> <li>EN60947-5-1</li> </ul>	<ul style="list-style-type: none"> <li>CE Marked</li> <li>cULus File No. E14840</li> </ul>

# Approximate Dimensions

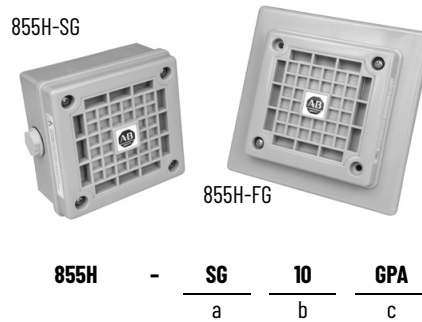
Dimensions in millimeters (inches). Dimensions are not intended to be used for manufacturing purposes.



This product line includes general-purpose, high-performance, and recordable electronic horns.

## General-purpose Electronic Horns

These devices produce a sound output of 108 dB (A) maximum, which is suitable for most mid-range industrial and institutional, single-status signaling applications. The enhanced version produces sound output of 113 dB (A) max. Our horns have multi-tone and volume control capabilities. You can retrofit the horns directly into most machine panel cutouts or mount them into traditional 10.2 cm (4 in.) electrical back boxes.



a	
Mounting Type	
Code	Description
FG	Semi-flush wall plate, gray housing
SG	Surface base with two conduit entrances, gray housing


b	
Voltage	
Code	Description
24	24V AC/DC
10	120V AC
20	240V AC
30	10...30V DC
45	40...260V AC/DC, 50/60 Hz

c	
Horn Type	
Code	Description
GPA (1)	General-purpose, 108 dB(A) max, single stage/circuit, three tones
GPE (2)	Enhanced version, 113 dB(A) max @ 1 m (3.3 ft), two stage, three tones, volume control

(1) Not valid with voltage codes 30 and 45 (Table b).

(2) Not valid with mounting type FG (Table a) or with voltage codes 24, 10, and 20 (Table b).

## Accessories

Description	Cat. No.
 M20 hole plug replacement kit (1)	855H-AHPK

(1) For use with mounting type SG only.

## Specifications

Table 7 - Environmental

Attribute		Value
Ingress Ratings	Semi-flush Mount	UL Type 3R/13, IP54
	Surface Mount	UL Type 4/4X/13/3R, IP66
Temperature Ranges	Operating	-25...+55 °C (-13...+131 °F)
	Storage	-40...+70 °C (-40...+158 °F)

**Table 8 - Materials**

Part	Material
Housings including horn cover and base	Polycarbonate
O-ring	NBR
Gasket (mounting type FG)	EPDM/SBR closed-cell foam

**Table 9 - Performance Ratings**

Attribute	Performance Rating	
Sound Output	Standard (GPA)	105±3 dB(A) @ 1 m (3.3 ft)
	Enhanced (GPE)	110±3 dB(A) @ 1 m (3.3 ft)

**Table 10 - Operating Voltage and Currents**

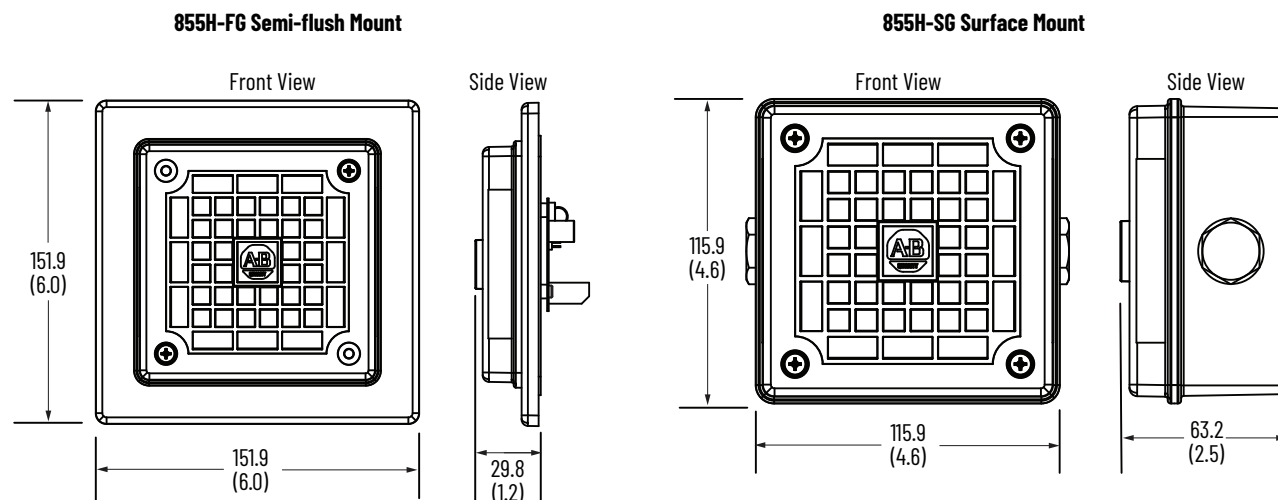
Attribute	Horn Type	DC Voltage	AC Voltage		
			24V AC, 50/60 Hz (±10%)	120V AC, 50/60 Hz (±10%)	240V AC, 50/60 Hz (±10%)
Input Voltage Ranges	Standard (GPA)	24V DC (±25%)	24V AC, 50/60 Hz (±10%)	120V AC, 50/60 Hz (±10%)	240V AC, 50/60 Hz (±10%)
	Enhanced (GPE)	10...30V DC	40...260V AC/DC		
Input Currents @ Nominal Voltage	Standard (GPA)	62 mA	220 mA	40 mA	50 mA
	Enhanced (GPE)	105 mA	—	36 mA	18 mA

**Table 11 - Standards and Certifications**

Attribute	Bulletin 855H – General-purpose Electronic Horns		
Standards Compliance	<ul style="list-style-type: none"> <li>UL 464</li> <li>CSA C22.2 No. 205</li> </ul>	<ul style="list-style-type: none"> <li>EN/IEC 60947-1</li> <li>EN/IEC 60947-5-1</li> </ul>	<ul style="list-style-type: none"> <li>EN 6100-6-2</li> <li>EN 6100-6-3</li> </ul>
Certifications	<ul style="list-style-type: none"> <li>CE Marked</li> </ul>	<ul style="list-style-type: none"> <li>c-UL-us Listed (File No. S6583, Guides UCST, UCST7)</li> </ul>	

## Approximate Dimensions

Dimensions are in millimeters (inches). Dimensions are not intended to be used for manufacturing purposes.



# High-performance Electronic Horns

**IMPORTANT** The following information applies to 855H, High-performance Electronic Horns - Frames B, C, and E - Series B and Frames A and D - Series A. For information regarding Series A horns, refer to publication [855-TD002](#).

These devices are available as a standalone electronic horn or with a beacon. They are available in a plastic housing.

- 24V DC, 120V AC, and 240V
- IP66 enclosure rating AC
- Square xenon tube illumination available in six colors
- UV-stable plastic enclosure. UL Type 13/3R, IP66 (Frames A, B, D), c-UL-us Type 4/4X/13/3R (Frames C and E)
- Output/Tones:
  - Frame A: 100dB/10 tones (1 or 2 stages)
  - Frame B: 110 dB/64 tones (4 stages)
  - Frame C: 113 dB/64 tones (4 stages)
  - Frame D: 119 dB/45 tones (3 stages)
  - Frame E: 124 dB/64 tones (4 stages)

Frame "A" Industrial Horn



Frame "C" Industrial Horn



Frame "E" Industrial Horn



855H - 

B
a

D30
b

B
c

D
d

a	
Product Type	
Code	Description
B	Industrial horn, gray housing

b <sup>(1)</sup>	
Voltage	
Code	Description
D30 <sup>(2)</sup>	10...60V DC
A24	24V AC, 50/60 Hz
A10	120V AC, 50/60 Hz
A20	230V AC, 50/60 Hz
A45 <sup>(3)</sup>	24...260V AC, 50/60 Hz

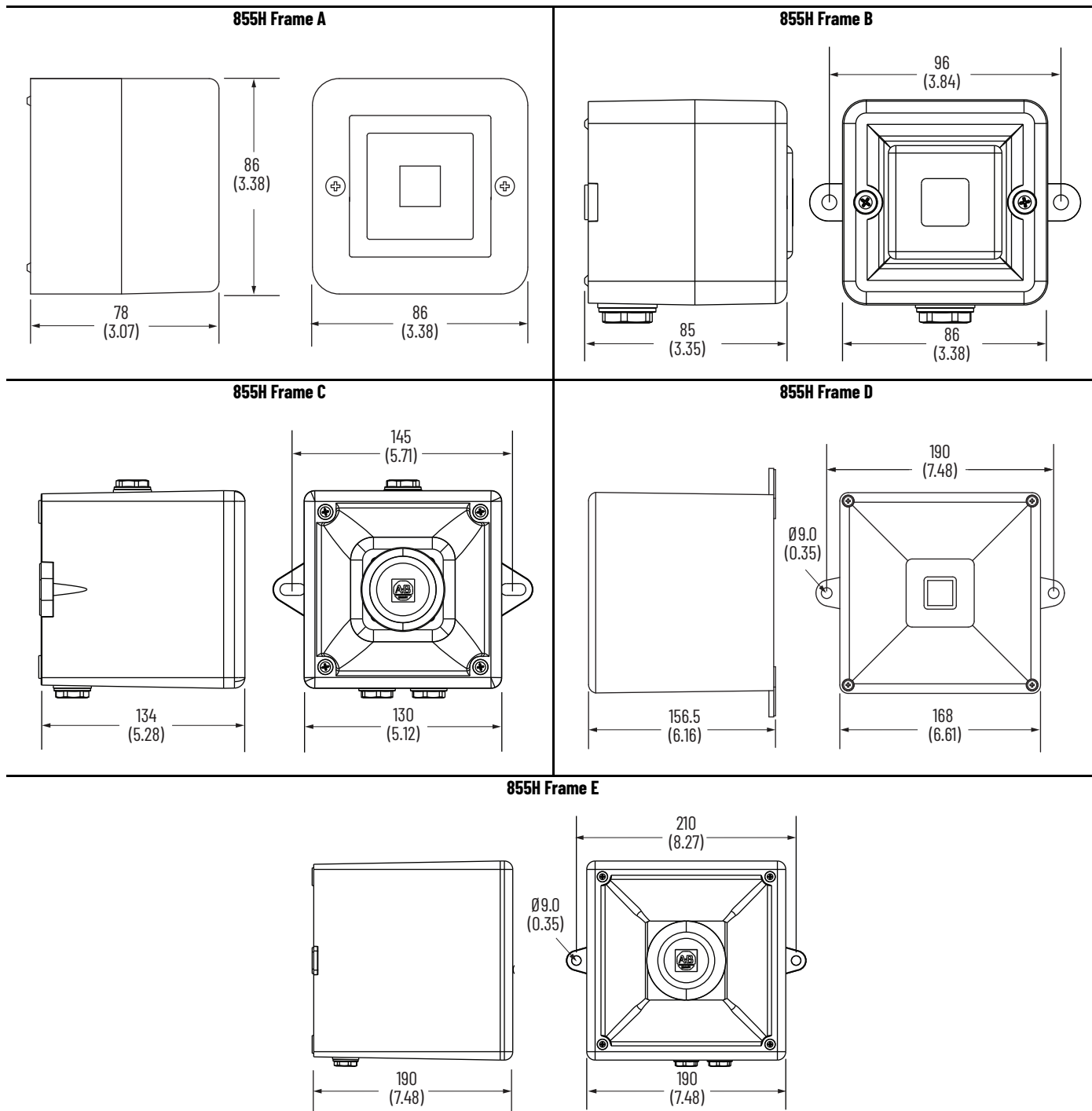
c	
Horn Type	
Code	Description
A	100 dB, 10 tone, 2-stage (DC)
	100 dB, 10 tone, 1-stage (AC)
B	110 dB, 64 tone, 4-stage (DC)
	110 dB, 64 tone, 4-stage (AC)
C	113 dB, 64 tone, 4-stage (DC)
	113 dB, 64 tone, 4-stage (AC)
D	119 dB, 45 tone, 3-stage (DC)
	119 dB, 45 tone, 3-stage (AC)
E	124 dB, 64 tone, 4-stage (DC)
	124 dB, 64 tone, 4-stage (AC)

d	
Mount Option	
Code	Description
D	Standard base for surface or on-the-wall mounting with conduit openings and hole plugs

(1) Voltage codes A24, A10, and A20 are valid only for Horn Type A. Voltage Code A24 is not valid for Horn Type D. Voltage Codes A10 and A20 are not valid for Horn Types B, C, or E.  
 (2) 10...30V DC for Frame D and 11.5...54V DC for Frame E.  
 (3) 60...260V DC (100...240V AC) for Frame.

### Approximate Dimensions

Dimensions in millimeters (inches). Dimensions are not intended to be used for manufacturing purposes



### High-performance Electronic Horns with Attached Strobe Beacons

**IMPORTANT** The following information applies to 855H High-performance Electronic Horns with Attached Strobe Beacons - Frames B, C, and E- Series D and Frames A and D - Series C. For information on series C horns with attached beacons, refer to publication [855-TD002](#).

Frame "A" Horn with Beacon



Frame "C" Horn with Beacon



Frame "E" Horn with Beacon



855H - BC D12 E D R 3  
 a b c d e f

a	
Product Type	
Code	Description
BC	Electronic horn with Xenon strobe beacon, gray housing

b <sup>(1)</sup>	
Voltage	
Code	Description
D12	12V DC
D24	24V DC
A24	24V AC, 50/60 Hz
A10	115V AC, 50/60 Hz
A20	230V AC, 50/60 Hz

c	
Horn Type	
Code	Description
A	100 dB, 10 tone, 2-stage (DC)
	100 dB, 10 tone, 1-stage (AC)
B	110 dB, 64 tone, 4-stage (DC)
	110 dB, 64 tone, 4-stage (AC)
C	113 dB, 64 tone, 4-stage (DC)
	113 dB, 64 tone, 4-stage (AC)
D	119 dB, 45 tone, 3-stage (DC)
	119 dB, 45 tone, 3-stage (AC)
E	124 dB, 64 tone, 4-stage (DC)
	124 dB, 64 tone, 4-stage (AC)

d	
Mount Option	
Code	Description
D	Standard base for surface or on-the-wall mounting with conduit openings and hole plugs

e	
Illuminated Function	
Code	Description
R	5 J strobe

f	
Lens Color <sup>(2)</sup>	
Code	Description
3	Green
4	Red
5	Amber
6	Blue
7	Clear
8	Yellow

(1) Voltage Codes D12 and A24 are available only with Horn Type A.  
 (2) Frames B, C, D, and E available with Red or Amber Lens only.

### Accessories

Description		Cat. No.		
	M20 hole plug replacement kit	855H-AHPK		
	Gasket set replacement kit	Type:		
			Frame A, B, and beacon light	855H-AGKBAB
			Frame C horn	855H-AGKC
			Frame D horn	855H-AGKD
		Frame E horn	855H-AGKE	

Description		Cat. No.		
	Replacement Beacon Light Lens	Color:		
			Red	855B-ABLR
			Green	855B-ABLG
			Amber	855B-ABLA
			Blue	855B-ABLB
			Clear	855B-ABLC
	Yellow	855B-ABLY		

## Specifications

**IMPORTANT** The maximum shock and vibration standards for the 855H horn in [Table 12](#) are reference guidelines.

**Table 12 - Mechanical**

Device	Shock	Vibration
Frame A horn	15 G peak	3 G peak
Frame B horn	15 G peak	3 G peak
Frame C horn	15 G peak	3 G peak
Frame D horn	15 G peak	3 G peak
Frame E horn	15 G peak	1 G peak
Frame A horn with strobe beacon	15 G peak	3 G peak
Frame B horn with strobe beacon	15 G peak	3 G peak
Frame C horn with strobe beacon	15 G peak	3 G peak
Frame D horn with strobe beacon	15 G peak	3 G peak
Frame E horn with strobe beacon	15 G peak	1 G peak

**Table 13 - Environmental**

Attribute	Device	Value
Ingress ratings	Electronic horns	Frame A, B, and D: UL Type 13/3R, IP66 Frame C and E: UL Type 4/4X/13/3R, IP66
	Horn with beacon	Frame A, B, and D: UL Type 13/3R, IP66 Frame C and E: UL Type 4/4X/13/3R, IP66
Temperature ranges	Operating	Frames A and D: -25...+55 °C (-13...+131 °F) Frames B, C, E: -40...+66 °C (-40...+151 °F) Canada: -40...+55 °C (-40...+131 °F)
	Storage	-40...+75 °C (-40...+167 °F)

**Table 14 - Materials**

Part	Material
Horn cover and base	ABS
Beacon housing	Polycarbonate
Beacon lens	Polycarbonate
Gasket (cover to base)	Nitrile 70
Gasket (enclosure back to wall)	Nitrile 70
Gasket (horn to beacon)	Nitrile 70
Gasket (screw mounting hole)	Fiber

**Table 15 - Performance Ratings**

Attribute	Device	Performance Rating
Sound output	Frame A horn	100 dB max @ 1 m (3.3 ft)
	Frame B horn	110 dB max @ 1 m (3.3 ft)
	Frame C horn	113 dB max @ 1 m (3.3 ft)
	Frame D horn	119 dB max @ 1 m (3.3 ft)
	Frame E horn	124 dB max @ 1 m (3.3 ft)
Xenon Lamp Rating	Strobe beacon	5 J output



**Table 16 - Operating Voltage**

Device	Frame A	Frame B	Frame C	Frame D	Frame E
<b>DC Voltage</b>					
All horns	10...30V DC	10...60V DC 60...260V DC	10...60V DC 60...260V DC	10...30V DC	11.5...54V DC
All horns with strobe beacon	20...28V DC	20...28V DC	20...28V DC	20...28V DC	20...28V DC
<b>AC Voltage</b>					
All horns	24V AC, 50/60 Hz (±10%) 115V AC, 50/60 Hz (±10%) 230V AC, 50/60 Hz (±10%)	24...260V AC, 50/60 Hz	24...260V AC, 50/60 Hz	115V AC, 50/60 Hz (±10%) 230V AC, 50/60 Hz (±10%)	100...240V AC, 50/60 Hz
All horns with strobe beacon	24V AC, 50/60 Hz (±10%) 115V AC, 50/60 Hz (±10%) 230V AC, 50/60 Hz (±10%)	115V AC, 50/60 Hz (±10%) 230V AC, 50/60 Hz (±10%)	115V AC, 50/60 Hz (±10%) 230V AC, 50/60 Hz (±10%)	115V AC, 50/60 Hz (±10%) 230V AC, 50/60 Hz (±10%)	115V AC, 50/60 Hz (±10%) 207 ...240V AC, 50/60 Hz

**Table 17 - Current Consumption [mA]**

Attribute	Frame A	Frame B	Frame C	Frame D	Frame E	
Horns	24V DC	25	33.5	33.5	200	430/930
	24V AC, 50/60 Hz	40	N/A	N/A	N/A	N/A
	115V AC, 50/60 Hz	13	25	25	100	173/340
	240V AC, 50/60 Hz	13	17	17	60	105/212
Horns with strobe beacon	12V DC	525	N/A	N/A	N/A	N/A
	24V DC	275	284	284	450	1180
	24V AC	405	N/A	N/A	N/A	N/A
	115V AC	113	95	95	200	410
	240V AC	63	52	52	110	247

**Table 18 - Flashing Frequency**

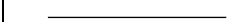

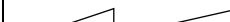

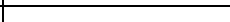
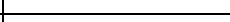

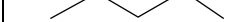
Attribute	Frame A	Frame B	Frame C	Frame D	Frame E
Strobe beacon	DC: 1 Hz/ 1.5Hz/ 2x Flash AC: 1 Hz				

**Table 19 - Standards and Certifications**

Attribute	Bulletin 855H – High-performance Electronic Horns			
Standards compliance	<ul style="list-style-type: none"> <li>UL 464A</li> <li>UL 1638A</li> </ul>	<ul style="list-style-type: none"> <li>C22.2 No. 205-17</li> <li>EN 60947-1:2007 + A1:2010 + A2:2014</li> </ul>	<ul style="list-style-type: none"> <li>EN 61000-6-1:2007</li> <li>EN 61000-6-2:2005</li> </ul>	<ul style="list-style-type: none"> <li>EN 61000-6-3:2007 / A1:2011 / AC: 2012</li> <li>EN 61000-6-4:2007 / A1: 2011</li> </ul>
Certifications	<ul style="list-style-type: none"> <li>CE Marked</li> <li>c-UL-us Listed (File No. S6583, Guides UCST, UCST7)</li> </ul>			

**Table 20 - Tone Selection Table**

**Tone Selection** - To select the required Stage 1 Tone, set the tone switches 1...6 to the tone setting shown. Stage 2 and Stage 3 Tones are available for use with the selected first stage tone if more that one tone output is required.

Stage 1	Frequency Description	Switch						Stage 2	Stage 3
		1	2	3	4	5	6		
Tone 1	340 Hz Continuous							Tone 2	Tone 5
Tone 2	800/1000 Hz at 0.25 second Alternating							Tone 17	Tone 5
Tone 3	500/1200 Hz at 0.30 Hz 0.5 second Slow Swoop							Tone 2	Tone 5
Tone 4	800/1000 Hz at 1 Hz Sweeping							Tone 6	Tone 5
Tone 5	2400 Hz Continuous							Tone 3	Tone 20
Tone 6	2400/2900 Hz at 7 Hz Sweeping							Tone 7	Tone 5
Tone 7	2400/2900 Hz at 1 Hz Sweeping							Tone 10	Tone 5
Tone 8	500/1200/500 Hz at 0.3 Hz Sweeping							Tone 2	Tone 5





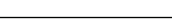
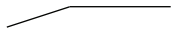
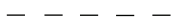
**Table 20 - Tone Selection Table**

**Tone Selection** - To select the required Stage 1 Tone, set the tone switches 1...6 to the tone setting shown. Stage 2 and Stage 3 Tones are available for use with the selected first stage tone if more that one tone output is required.

Stage 1	Frequency Description	Waveform	Switch						Stage 2	Stage 3
			1	2	3	4	5	6		
Tone 9	1200/500 Hz at 1 Hz –DIN/PFEER P.T.A.P.					■			Tone 15	Tone 2
Tone 10	2400/2900 Hz at 2 Hz Alternating		■			■			Tone 7	Tone 5
Tone 11	1000 Hz at 1 Hz Intermittent					■			Tone 2	Tone 5
Tone 12	800/1000 Hz at 0.875 Hz Alternating		■	■		■			Tone 4	Tone 5
Tone 13	2400 Hz at 1 Hz Intermittent				■	■			Tone 15	Tone 5
Tone 14	800 Hz 0.25 seconds on, 1 second off Intermittent		■		■	■			Tone 4	Tone 5
Tone 15	800 Hz Continuous			■	■	■			Tone 2	Tone 5
Tone 16	660 Hz 150 ms on, 150 ms off Intermittent		■	■	■	■			Tone 18	Tone 5
Tone 17	544 Hz (100 ms)/440 Hz (400 ms) – NF S 32-001						■		Tone 2	Tone 27
Tone 18	660 Hz 1.8 seconds on, 1.8 seconds off Intermittent		■				■		Tone 2	Tone 5
Tone 19	1.4 KHz - 1.6 kHz 1 second, 1.6 kHz - 1.4 kHz 0.5 seconds – NFC 48-265			■			■		Tone 2	Tone 5
Tone 20	660 Hz Continuous		■	■			■		Tone 2	Tone 5
Tone 21	544 Hz/440 Hz at 1 Hz Alternating				■		■		Tone 2	Tone 5
Tone 22	544 Hz at 0.875 seconds Intermittent		■		■		■		Tone 2	Tone 5
Tone 23	800 Hz at 2 Hz Intermittent			■	■		■		Tone 6	Tone 5
Tone 24	800/1000 Hz at 50 Hz Sweeping		■	■	■		■		Tone 29	Tone 5
Tone 25	2400/2900 Hz at 50 Hz Sweeping					■	■		Tone 29	Tone 5
Tone 26	Bell		■				■	■	Tone 2	Tone 15
Tone 27	554 Hz Continuous			■		■	■		Tone 26	Tone 5
Tone 28	440 Hz Continuous		■	■		■	■		Tone 2	Tone 5
Tone 29	800/1000 Hz at 7 Hz Sweeping				■	■	■		Tone 7	Tone 5
Tone 30	300 Hz Continuous		■		■	■	■		Tone 2	Tone 5
Tone 31	660/1200 Hz at 1 Hz Sweeping			■	■	■	■		Tone 26	Tone 5
Tone 32	Two tone chime		■	■	■	■			Tone 26	Tone 15
Tone 33	745 Hz at 1 Hz Intermittent						■		Tone 2	Tone 5
Tone 34	1000 Hz and 2000 Hz at 0.5 seconds Alternating - Singapore		■				■		Tone 38	Tone 45
Tone 35	420 Hz at 0.625 seconds, Australian alert			■			■		Tone 36	Tone 5
Tone 36	500-1200 Hz 3.75 seconds / 0.25 seconds, Australian Evacuation		■	■			■		Tone 35	Tone 5
Tone 37	1000 Hz Continuous – PFEER Toxic Gas				■		■		Tone 9	Tone 45
Tone 38	2000 Hz Continuous		■		■		■		Tone 34	Tone 45
Tone 39	800 Hz 0.25 seconds on, 1 second off Intermittent			■	■		■		Tone 23	Tone 17

**Table 20 - Tone Selection Table**

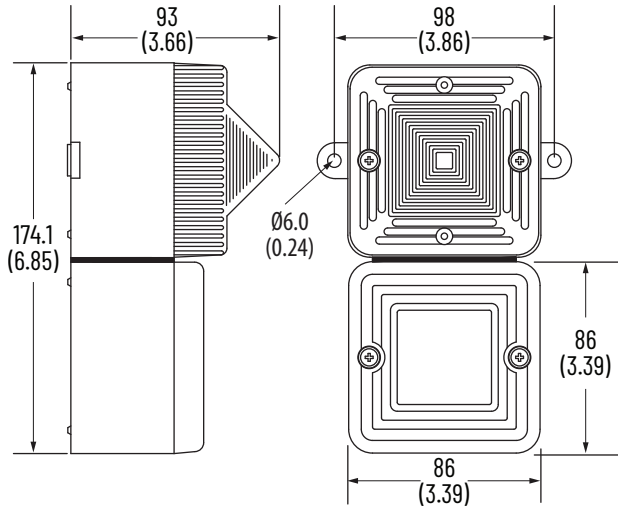
**Tone Selection** - To select the required Stage 1 Tone, set the tone switches 1...6 to the tone setting shown. Stage 2 and Stage 3 Tones are available for use with the selected first stage tone if more that one tone output is required.

Stage 1	Frequency Description		Switch						Stage 2	Stage 3
			1	2	3	4	5	6		
Tone 40	544 Hz (100 ms)/440 Hz (400 ms) – NFS 32-001		■	■	■			■	Tone 31	Tone 27
Tone 41	Motor siren - slow rise to 1200 Hz					■		■	Tone 2	Tone 5
Tone 42	Motor siren - slow rise to 800 Hz		■			■		■	Tone 2	Tone 5
Tone 43	1200 Hz Continuous			■		■		■	Tone 2	Tone 5
Tone 44	Motor siren - slow rise to 2400 Hz		■	■		■		■	Tone 2	Tone 5
Tone 45	1 kHz 1 second on, 1 second off Intermittent –PFEER Gen. Alarm				■	■		■	Tone 38	Tone 34

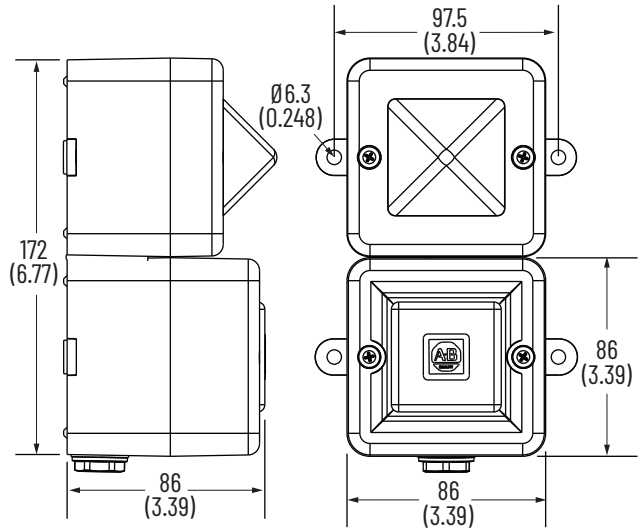
## Approximate Dimensions

Dimensions are not intended to be used for manufacturing purposes. Horns with Beacons.

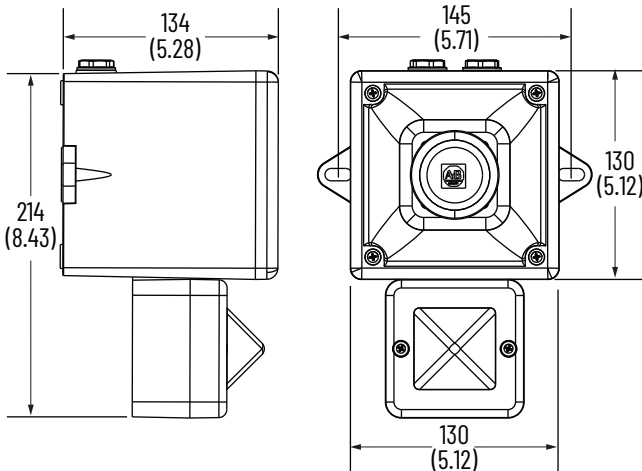
**Frame A Horn with Beacon**



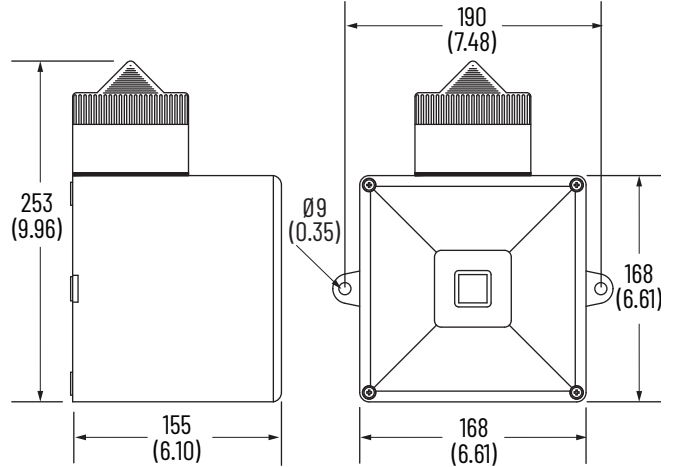
**Frame B Horn with Beacon**



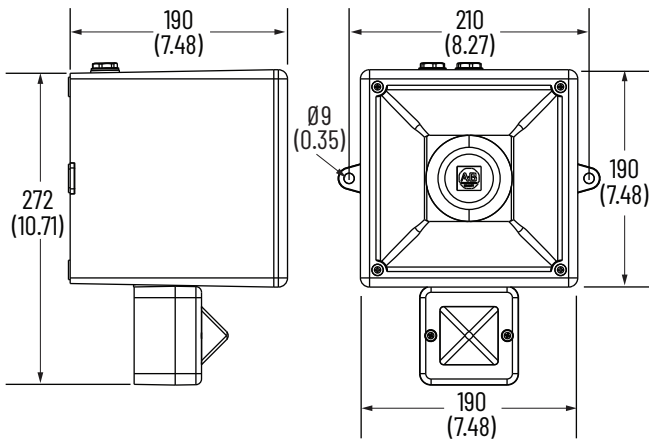
**Frame C Horn with Beacon**



**Frame D Horn with Beacon**



**Frame E Horn with Beacon**



## Recordable Electronic Horns

These devices are available as a standalone electronic horn or with a beacon. You can download melodies or customized tones from any analog device (such as a personal computer or MP3 player). You can also record voice by speaking directly into the unit via an onboard microphone; you do not need to purchase additional recording hardware or equipment.

Frame C (AC)



Frame C (DC)



Frame E (All Versions)



Flare Style (All Versions)



855H -  $\frac{R}{a}$   $\frac{30}{b}$   $\frac{C}{c}$

a	
Product Type	
Code	Description
R	Recordable horn

b	
Voltage (1)	
Code	Description
30	10...30V DC
45	90...260V AC, 50/60 Hz

c	
Frame Size	
Code	Description
C	Frame C, 101 dB (A) voice, 110 dB (A) tone at 1 m (3.3 ft), 45 tones, gray housing
E	Frame E, 111 dB (A) voice, 126 dB (A) tone at 1 m (3.3 ft), 45 tones, gray housing
F	Flare style, 111 dB (A) voice, 126 dB (A) tone at 1 m (3.3 ft), 45 tones, gray housing

(1) Frame C is 10...30V DC; Frame E and Flare are 14...30V DC

## Recordable Electronic Horns with Attached LED Beacons

**IMPORTANT** The following information applies to 855H Recordable Electronic Horns with Attached LED Beacons- Series B. For information on series A, refer to publication [855-TD002](#).

Frame C Horn with Beacon (AC)



Frame C Horn with Beacon (DC)



Frame E Horn with Beacon (All Versions)



855H -  $\frac{RC}{a}$   $\frac{30}{b}$   $\frac{C}{c}$   $\frac{3}{d}$

a	
Product Type (1)	
Code	Description
RC	Recordable horn with LED beacon, gray housing

b	
Voltage (2)	
Code	Description
30	10...30V DC
45	90...260V AC, 50/60 Hz

c	
Horn Type	
Code	Description
C	Frame C, 101 db(A) voice, 110 dB(A) tone at 1 m (3.3 ft), 45 selectable tones, 4 stages
E	Frame E, 111 db(A) voice, 126 dB(A) tone at 1 m (3.3 ft), 45 selectable tones, 4 stages

d	
LED Color	
Code	Description
4	Red
5	Amber

(1) LED beacon has eight selectable modes; steady/ blinking/ flashing 1Hz/ flashing 1.5Hz/ flashing 2Hz/ flashing 2X/ flashing 3X/ flashing temporal  
 (2) Frame C is 10...14/16...30V (default) DC  
 Frame E is 16...30V DC

## Specifications

**IMPORTANT** The maximum shock and vibration standards for the 855H horn in [Table 21](#) are reference guidelines.

**Table 21 - Mechanical**

Device	Shock	Vibration
Frame C horn	15 G peak	3 G peak
Frame E horn	15 G peak	1 G peak
Flare style	15 G peak	1 G peak
Frame C horn with LED beacon	15 G peak	3 G peak
Frame E horn with LED beacon	15 G peak	1 G peak

**Table 22 - Environmental**

Attribute	Device	Value
Ingress ratings	Electronic horns	Frame C & E: UL Type 3R, 4/4X, 13, IP66 Flare: UL Type 3R, 4/4X, 13, IP66/IP67
	Horn with beacon	
Temperature ranges	Operating	-25...+55 °C (-13...+131 °F)
	Storage	-40...+70 °C (-40...+158 °F)

**Table 23 - Materials**

Part	Material
Horn cover and base	ABS
Beacon housing	Polycarbonate
Beacon lens	Polycarbonate
Gasket (cover to base)	Nitrile 70
Gasket (enclosure back to wall)	Closed-cell neoprene foam
Gasket (horn to beacon)	Closed-cell neoprene foam
Gasket (screw mounting hole)	Fiber

**Table 24 - Performance Ratings**

Attribute	Device	Performance Rating
Sound output	Frame C horn	110 dB(A) tone, 103 dB(A) music, 101 dB(A) voice @ 1 m (3.3 ft)
	Frame E horn	126 dB(A) tone, 112 dB(A) music, 111 dB(A) voice @ 1 m (3.3 ft)
	Flare style	126 dB(A) tone, 112 dB(A) music, 111 dB(A) voice @ 1 m (3.3 ft)

**Table 25 - Operating Voltage**

Device	DC Voltage	AC Voltage
All horns	Frame C: 10...30V DC Frame E and Flare: 14...30V DC	90...260V AC, 50/60 Hz
All horns with LED beacon	Frame C: 10...14/16...30V DC Frame E: 16...30V DC	

**Table 26 - Maximum Current Consumption**

Attribute	Frame C	Frame E	Flare Style
Horns	24V DC	256 mA	1.51 A
	120V AC, 50/60 Hz	112 mA	542 mA
	230V AC, 50/60 Hz	124 mA	517 mA
Horns with LED beacon	24V DC	343 mA	—
	120V AC, 50/60 Hz	147 mA	—
	230V AC, 50/60 Hz	143 mA	—

**Table 27 - Flashing Frequency**

Attribute		Frame C	Frame E	Flare Style
LED beacon		steady/ blinking/ flashing 1Hz/ flashing 1.5Hz/ flashing 2Hz/ flashing 2X/ flashing 3X/ flashing temporal		
LED light output	Red	26 cd		
	Amber	100 cd		

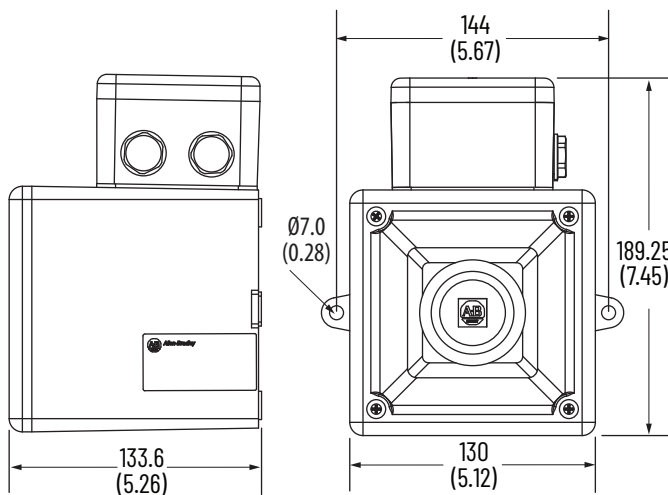
**Table 28 - Standards and Certifications**

Standards Compliance	Certifications
<ul style="list-style-type: none"> <li>• UL 464</li> <li>• CSA C22.2 No. 205 - M1983</li> <li>• EN 61000-6-1:2007</li> <li>• EN 61000-6-3:2007 / A1:2011 / AC: 2012</li> <li>• UL1638</li> <li>• EN 60947-1:2007 + A2:2014</li> <li>• EN 61000-6-2:2005</li> <li>• EN 61000-6-4:2007 / A1: 2011</li> </ul>	<ul style="list-style-type: none"> <li>• CE Marked</li> <li>• cULus Listed (File No. S6583, Guides UCST, UCST7)</li> </ul>

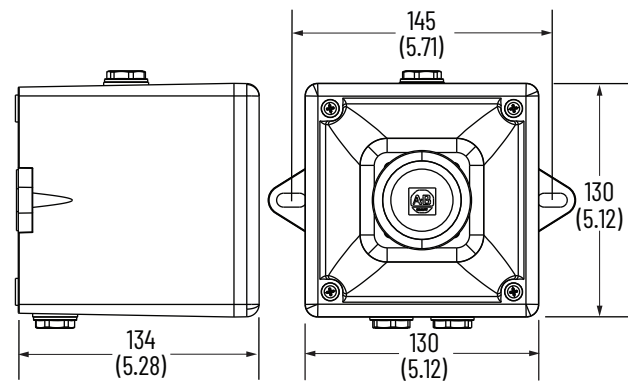
## Approximate Dimensions

Dimensions in millimeters (inches). Dimensions are not intended to be used for manufacturing purposes.

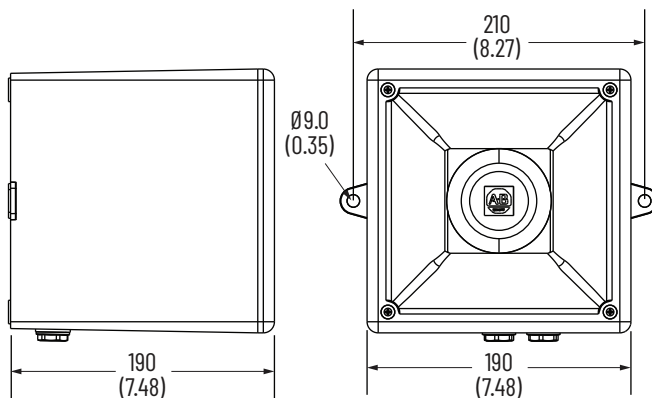
**Frame C (AC Version) Recordable Electronic Horn**



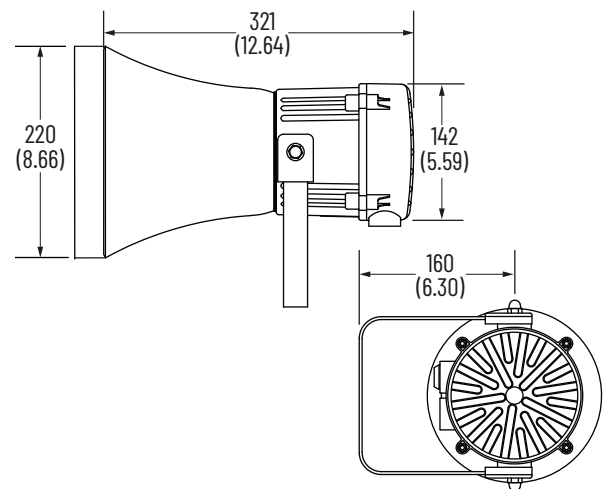
**Frame C (DC Version) Recordable Electronic Horn**



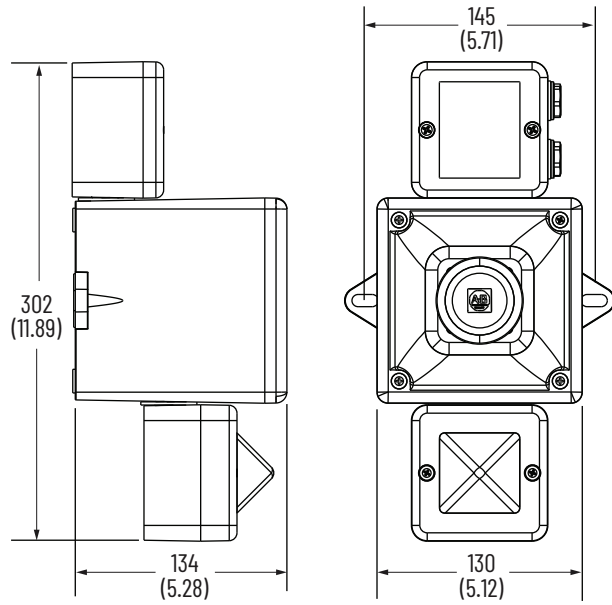
**Frame E (All Versions) Recordable Electronic Horn**



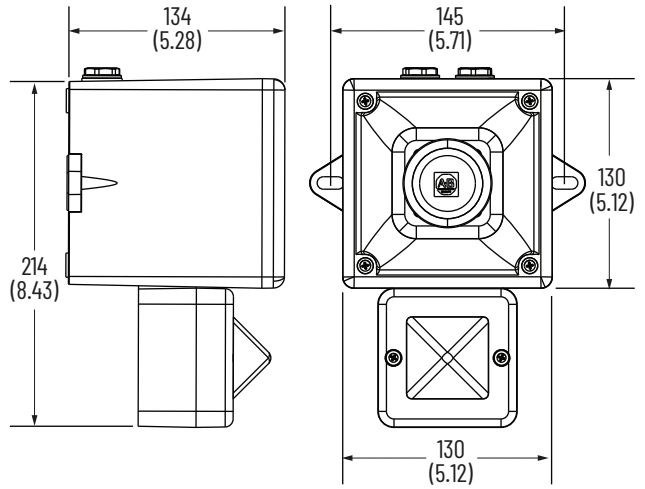
**Flare-style Recordable Electronic Horn**



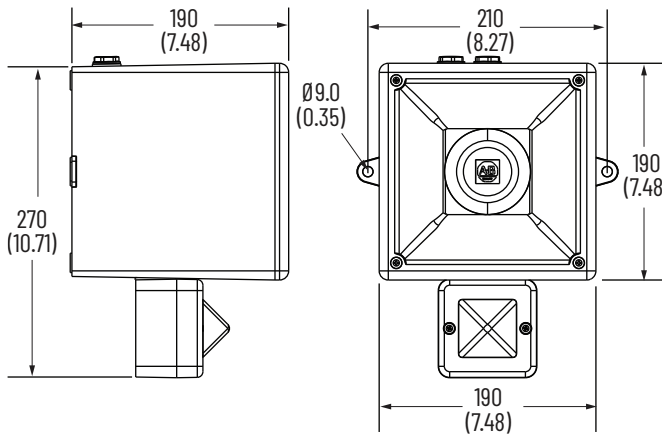
**Frame C (AC Version) Recordable Electronic Horn with Beacon**



**Frame C (DC Version) Recordable Electronic Horn with Beacon**



**Frame E Recordable Electronic Horn with Beacon**





## High-performance Electronic Metal Horns

These devices are available as a standalone electronic horn or with a beacon. They are available in a marine-grade aluminum housing.

- 24V DC, 120V AC, and 240V AC
- IP66 enclosure rating
- Selectable steady/flashing LED dome-shaped illumination available in five colors
- Marine-grade aluminum enclosure (c-UL-us, Type 4/4X/13/3R)
- Output/Tones: 119 dB/45 tones (3 stages)

### High-performance Electronic Metal Horn



855HM - G M D30 D  
a b c d

a	
Housing Color	
Code	Description
G	Gray

b	
Conduit Entry	
Code	Description
M	Two M20 x 1.5 mm conduit entries

c	
Voltage	
Code	Description
D30	10...30V DC
A10	115V AC, 50/60 Hz
A20	230V AC, 50/60 Hz

d	
Horn Type	
Code	Description
D	119 dB, 45 tone, 3-stage

## High-performance Electronic Metal Horns with Attached LED Beacons

**IMPORTANT** The following information applies to 855HM Metal Electronic Horns with Attached LED Beacons- Series B. For information on series A, refer to publication [855-TD002](#).

### High-performance Electronic Metal Horn



855HM - C G M D30 D L 4  
a b c d e f g

a	
Product Type	
Code	Description
C	Electronic horn with 8-mode LED beacon

b	
Housing Color	
Code	Description
G	Gray

c	
Conduit Entry	
Code	Description
M	Two M20 x 1.5 mm conduit entries


d	
Voltage	
Code	Description
D30	10...14/16...30V DC
A10	115V AC, 50/60 Hz
A20	230V AC, 50/60 Hz

e	
Horn Type	
Code	Description
D	119 dB, 45 tone, 3-stage

f	
Illumination Function	
Code	Description
L	Multifunction LED

g	
Lens Color	
Code	Description
4	Red
5	Amber

## Accessories

Description	Cat. No.
 M20 hole plug replacement kit	855H-AHPK

## Specifications

**IMPORTANT** The maximum shock and vibration standards for the 855H horn in [Table 29](#) are reference guidelines.

**Table 29 - Mechanical**

Device	Shock [G]	Vibration [G]
Metal horn	40	3
Metal horn with LED beacon	30	3

**Table 30 - Environmental**

Attribute	Device	Value
Ingress rating	Electronic horn	UL Type 4/4X/13/3R, IP66
	Horn with beacon	UL Type 4/4X/13/3R, IP66
Temperature range	Operating	-25...+55 °C (-13...+131 °F)
	Storage	-40...+70 °C (-40...+158 °F)

**Table 31 - Materials**

Part	Material
Housing	Marine-grade aluminum AL SI 12 Cu (phosphated and powder-coated)
Screws	Stainless steel
Beacon lens	Clear polycarbonate over glass
Lens cage	Stainless steel
Gasket (cover to base)	O-ring nitrile UL
Gasket (screw mounting hole)	Fiber washer

**Table 32 - Performance Ratings**

Device	Sound Output @ 1 m (3.3 ft)	Volume Control	No. of Tones	Stages
Metal horn	119 dB max	Adjustable -12 dB	45	3
LED Output	Red LED beacon	36 cd		
	Amber LED beacon	109 cd		

**Table 33 - Operating Voltage**

Device	DC Voltage	AC Voltage
Horn	10...30V DC	115V AC 50/60 Hz (±10%) 230V AC 50/60 Hz (±10%)
Horn with beacon	10...14/16...30V DC	115V AC 50/60 Hz (±10%) 230V AC 50/60 Hz (±10%)

**Table 34 - Current Consumption**

Device	Voltage	Current Consumption	Device	Voltage	Current Consumption
Horns	10...30V DC	270 mA max @ 30V 200 mA @ 24V 100 mA @ 12V	Horns with LED beacon	10...14/16...30V DC	287 mA @ 24V 280 mA @ 12V
	115V AC 50/60 Hz	100 mA		115V AC	134 mA
	230V AC 50/60 Hz	60 mA		230V AC	79 mA

**Table 35 - Flashing Options**

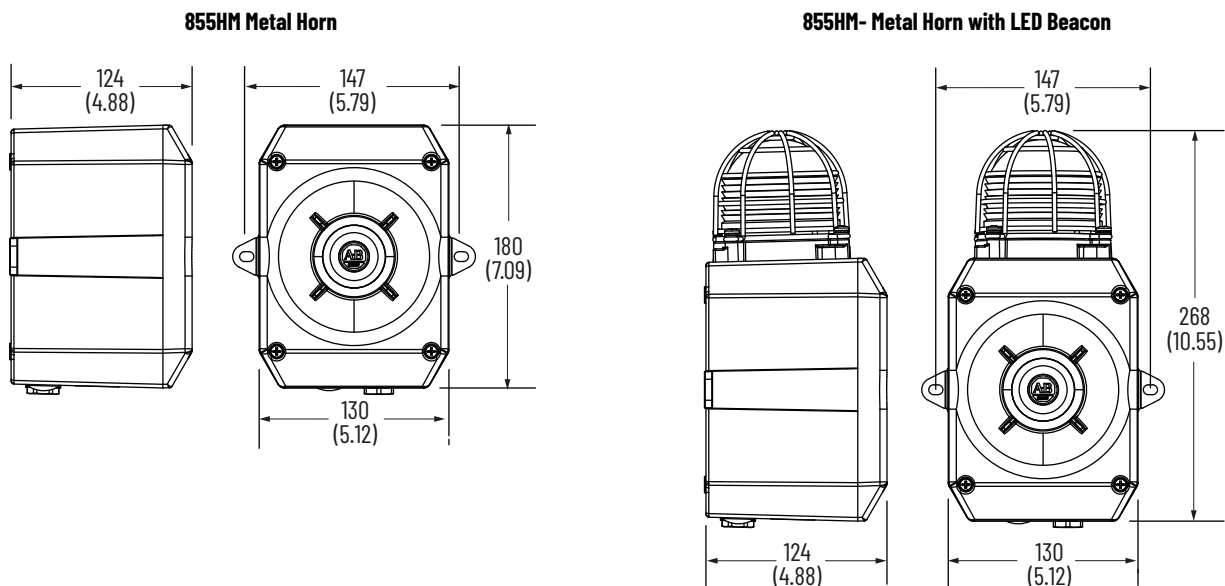
Device	Operating Modes
LED beacon	Steady/Blinking/Flashing 1 Hz/ Flashing 1.5 Hz / Flashing 2 Hz / Flashing 2X / Flashing 3X/ Flashing Temporal

**Table 36 - Standards and Certifications**

Standards Compliance	Certifications
<ul style="list-style-type: none"> <li>• CSA C22.2 No. 205 - M1983</li> <li>• EN 60947-1:2007+A2:2014EN 61000-6-1:2007</li> <li>• EN 61000-6-2:2005</li> <li>• EN 61000-6-3:2007 / A1:2011 / AC: 2012</li> </ul>	<ul style="list-style-type: none"> <li>• EN 61000-6-4:2007 / A1: 2011</li> <li>• UL 464 A</li> <li>• UL 1638 A</li> </ul>
	<ul style="list-style-type: none"> <li>• CE Marked</li> <li>• cULus Listed (File No. E197159 and S6583, Guides UCST, UCST7)</li> </ul>

## Approximate Dimensions

Dimensions in millimeters (inches). Dimensions are not intended to be used for manufacturing purposes.



This product line includes mini square and round beacons.

## Miniature Square Beacons

Miniature square 5 J strobe beacons are for general signaling applications. Bases accept conduit connections in the side and back of the enclosure.

### Miniature Square Strobe Beacon



855B - G MS 12 R 3  
                   a       b       c       d       e

a	
Housing Color	
Code	Description
G	Gray


b	
Beacon Type	
Code	Description
MS	Mini square beacon

c	
Voltage	
Code	Description
24	24V AC/DC
10	115V AC, 50/60 Hz
20	230V AC, 50/60 Hz

d	
Illumination Type	
Code	Description
R	5 J strobe

e	
Lens Color	
Code	Description
3	Green
4	Red
5	Amber
6	Blue
7	Clear
8	Yellow

## Accessories

Description	Color	Cat. No.
 Replacement Beacon Light Lens	Red	855B-ABLR
	Green	855B-ABLG
	Amber	855B-ABLA
	Blue	855B-ABLB
	Clear	855B-ABLC
	Yellow	855B-ABLY

## Specifications

**IMPORTANT** Maximum shock and vibration standards for the 855B Beacon Lights in [Table 37](#) are reference guidelines.

**Table 37 - Mechanical**

Device	Shock	Vibration
All strobe beacons	50 G peak	5 G peak

**Table 38 - Environmental**

Attribute	Value
Ingress ratings	UL Type 4/4X/13/3R, IP66
Operating temperature range	-25...+55 °C (-12...+131 °F)

**Table 39 - Materials**

Part	Material
Housing and lens	Polycarbonate
Gasket	Nitrile 70

**Table 40 - Performance Ratings**

Attribute	Device	Performance Rating
Xenon lamp rating	All strobe beacons	5 J

**Table 41 - Operating Voltage**

Device	Operating Voltage		
All strobe beacons	24V AC/DC, 50/60 Hz (±20%)	120V AC, 50/60 Hz (±10%)	230V AC, 50/60 Hz (±10%)

**Table 42 - Current Consumption**

Device	Current Consumption [mA]	
All strobe beacons	24V AC/DC	300/250
	120V AC	70
	230V AC	35

**Table 43 - Flashing Frequency**

Device	Flashing Frequency
Strobe beacon	DC: 1 Hz/ 1.5Hz/ 2x Flash AC: 1 Hz

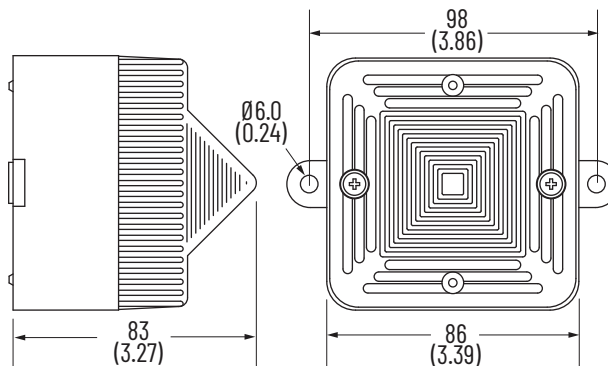
**Table 44 - Standards and Certifications**

Standards Compliance				Compliance
<ul style="list-style-type: none"> <li>UL 464</li> <li>UL 1638</li> </ul>	<ul style="list-style-type: none"> <li>CSA C22.2 No. 205</li> <li>EN/IEC 60947-1</li> </ul>	<ul style="list-style-type: none"> <li>EN/IEC 60947-5-1</li> <li>EN 6100-6-2</li> </ul>	<ul style="list-style-type: none"> <li>EN 6100-6-4</li> <li>CAN/ULLC-S526-M87</li> </ul>	<ul style="list-style-type: none"> <li>CE Marked</li> <li>cULus Listed (File No. E197159, Guides UUES, UEES7)</li> </ul>

### Approximate Dimensions

Dimensions in millimeters (inches). Dimensions are not intended to be used for manufacturing purposes.

**Miniature Square Strobe Beacon**



## Industrial Round Beacons

These devices are available in three diameters: 90 mm (Bul. 855BS), 120 mm (Bul. 855BM), and 160 mm (Bul. 855BL). All sizes are available in steady halogen, flashing halogen, strobe, and rotating halogen versions for flexibility in your applications. You can select from a wide range of mounting options, voltages, and colors.

### 855BS, \*55BM, and 855BL Industrial Round Beacons



### 90 mm Beacons

855BS -  S   10   RH   3   
 a b c d

a	
Base Type	
Code	Description
S	Surface mount <sup>(1)</sup>
N	1/2 in. NPT conduit mount
T	25 mm tube mount <sup>(2)</sup>

b	
Voltage	
Code	Description
12	12V AC/DC
24	24V AC/DC
10	120V AC
20	240V AC
35	24/48V AC/DC
45	120/240V AC/DC

c	
Function	
Code	Description
DH	Steady halogen
FH	Flashing halogen
RH	Rotating halogen
BR	Xenon tube strobe <sup>(3)</sup>
SL	Single-color LED selectable steady/flash <sup>(4)</sup>
ML	Three-color LED <sup>(5)(6)</sup>
BL	LED strobe selectable single/double flash <sup>(7)</sup>

d	
Lens Color	
Code	Description
345	Green, red, amber <sup>(6)</sup>
3	Green
4	Red
5	Amber
6	Blue
7	Clear
8	Yellow

- (1) Surface mount base must be installed with rough wall plate for UL Type 4/4X/13 rating, otherwise UL Type 1 only.
- (2) 25 mm tube mount is UL Recognized. Other mounting types are UL Listed.
- (3) Not available in 12V AC/DC.
- (4) SL function uses 35 (16...60V AC/16...80V DC) and 45 (90...250V AC/DC) voltage codes only
- (5) ML function uses 24, 10, and 20 voltage codes only.
- (6) Green, red, amber color combination is only valid for the three-color LED selection (ML).
- (7) BL function uses 35 (19...52V AC/16...60V DC), 10, and 20 voltage codes only.

### 120 mm Beacons

855BM -  S   10   FH   4   
 a b c d

a	
Base Type	
Code	Description
S	Surface mount <sup>(1)</sup>
N	1/2 in. NPT conduit mount
T	25 mm tube mount

b	
Voltage	
Code	Description
12	12V AC/DC
24	24V AC/DC
10	120V AC
20	240V AC

c	
Function	
Code	Description
DH	Steady halogen
FH	Flashing halogen
RH	Rotating halogen
BR	Xenon tube strobe <sup>(2)</sup>

d	
Lens Color	
Code	Description
3	Green
4	Red
5	Amber
6	Blue
7	Clear
8	Yellow

- (1) When used outdoors, surface mount base must be installed with rough wall plate for UL Type 4/4X/13 rating, otherwise UL Type 1 only.
- (2) Not available in 12V AC/DC.

## 160 mm Beacons

855BL -  $\frac{N}{a}$   $\frac{24}{b}$   $\frac{DH}{c}$   $\frac{5}{d}$

a	
Base Type	
Code	Description
S	Surface mount <sup>(1)</sup>
N	1 in. NPT conduit mount
T	25 mm tube mount

b	
Voltage	
Code	Description
12	12V AC/DC
24	24V AC/DC
10	120V AC
20	240V AC

c	
Function	
Code	Description
DH	Steady halogen
FH	Flashing halogen
RH	Rotating halogen
BR	Xenon tube strobe <sup>(2)</sup>

d	
Lens Color	
Code	Description
3	Green
4	Red
5	Amber
6	Blue
7	Clear
8	Yellow

- (1) When used outdoors surface mount base must be installed with rough wall plate for UL Type 4/4X/13 rating, otherwise UL Type 1 only.
- (2) Not available in 12V AC/DC.

## Accessories

### Lamps

855B  $\frac{M}{a}$  -  $\frac{LH}{b}$   $\frac{10}{c}$

a	
Size	
Code	Description
S	90 mm
M	120 mm
L	160 mm

b	
Function	
Code	Description
LH	Halogen

c	
Voltage	
Code	Description
12	12V AC/DC
24	24V AC/DC
10	120V AC
20	240V AC

### Lenses

855B  $\frac{L}{a}$  -  $\frac{AFL}{b}$   $\frac{4}{c}$

a	
Size	
Code	Description
S	90 mm
M	120 mm
L	160 mm

b	
Function	
Code	Description
ASL	Replacement smooth lens <sup>(1)</sup>
AFL	Replacement Fresnel lens <sup>(2)</sup>
ALL	Replacement LED lens <sup>(3)</sup>

c	
Voltage	
Code	Description
3	Green
4	Red
5	Amber
6	Blue
7	Clear
8	Yellow

- (1) Smooth lens for rotating function only.
- (2) Fresnel lens not for use with LED beacons
- (3) LED lens for 90 mm only.

## Power Module Assemblies

855B  $\frac{L}{a}$  -  $\frac{ARA}{b}$   $\frac{10}{c}$

a	
Size	
Code	Description
S	90 mm
M	120 mm
L	160 mm

b	
Function	
Code	Description
ARA	Replacement rotating power module
ADA	Replacement steady power module
AFA	Replacement flashing power module
ABA	Replacement strobe power module

c	
Voltage	
Code	Description
12	12V AC/DC
24	24V AC/DC
10	120V AC
20	240V AC

## Miscellaneous Accessories and Replacement Parts

855B  $\frac{M}{a}$  -  $\frac{LS}{b}$








a	
Size	
Code	Description
S	90 mm
M	120 mm
L	160 mm

b	
Function	
Code	Description
ALSG	Lens gaskets (bag of 5)
AMM	Magnetic mount
ASFG	Surface mount gaskets (bag of 5)
AMTG	Metric tube gaskets (bag of 5)
AWP	Rough wall plate <sup>(1)</sup>
AVM	Vertical bracket
LS	Strobe tube (120 mm or 160 mm only) <sup>(2)</sup>
ABS	Surface mount base <sup>(3)</sup>
ABN	NPT conduit mount base

- (1) Required for UL Type 4/4X/13 rating when using surface mount base outdoors.
- (2) This replacement part is for use only in 120V and 240V units. For 24V units, order complete power module replacement (catalog number 855BM-ABA24 or catalog number 855BL-ABA24).
- (3) When used outdoors surface mount base must be installed with rough wall plate for UL Type 4/4X/13 rating, otherwise UL Type 1 only.








Table 45 - Lamps, Lenses, and Power Modules

Description		90 mm	120 mm	160 mm
<b>Replacement Lamps</b>		<b>Voltage</b>	<b>Cat. No.</b>	<b>Cat. No.</b>
	Xenon strobe tube		—	855BM-LS <sup>(1)</sup> 855BL-LS <sup>(1)</sup>
	Halogen for steady burning, flashing, and rotating illumination functions	12V AC/DC	855BS-LH12	855BM-LH12 855BL-LH12
		24V AC/DC	855BS-LH24	855BM-LH24 855BL-LH24
		120V AC	855BS-LH10	855BM-LH10 855BL-LH10
		240V AC	855BS-LH20	855BM-LH20 855BL-LH20
<b>Replacement Lenses</b>		<b>Lens Color</b>	<b>Cat. No.</b>	<b>Cat. No.</b>
	Smooth lens for rotating beacon only	Green	855BS-ASL3	855BM-ASL3 855BL-ASL3
		Red	855BS-ASL4	855BM-ASL4 855BL-ASL4
		Amber	855BS-ASL5	855BM-ASL5 855BL-ASL5
		Blue	855BS-ASL6	855BM-ASL6 855BL-ASL6
		Clear	855BS-ASL7	855BM-ASL7 855BL-ASL7
		Yellow	855BS-ASL8	855BM-ASL8 855BL-ASL8
	Fresnel lens for steady and flashing halogen and xenon strobe functions (not for use in LED beacons)	Green	855BS-AFL3	855BM-AFL3 855BL-AFL3
		Red	855BS-AFL4	855BM-AFL4 855BL-AFL4
		Amber	855BS-AFL5	855BM-AFL5 855BL-AFL5
		Blue	855BS-AFL6	855BM-AFL6 855BL-AFL6
		Clear	855BS-AFL7	855BM-AFL7 855BL-AFL7
		Yellow	855BS-AFL8	855BM-AFL8 855BL-AFL8
	LED lens for 90 mm beacons only	Green	855BS-ALL3	—
		Red	855BS-ALL4	—
		Amber	855BS-ALL5	—
		Blue	855BS-ALL6	—
		Clear	855BS-ALL7	—
		Yellow	855BS-ALL8	—
<b>Power Modules <sup>(2)</sup></b>		<b>Voltage</b>	<b>Cat. No.</b>	<b>Cat. No.</b>
	Rotating power module	12V AC/DC	855BS-ARA12	855BM-ARA12 855BL-ARA12
		24V AC/DC	855BS-ARA24	855BM-ARA24 855BL-ARA24
		120V AC	855BS-ARA10	855BM-ARA10 855BL-ARA10
		240V AC	855BS-ARA20	855BM-ARA20 855BL-ARA20
	Steady power module	12V AC/DC	855BS-ADA12	855BM-ADA12 855BL-ADA12
		24V AC/DC	855BS-ADA24	855BM-ADA24 855BL-ADA24
		120V AC	855BS-ADA10	855BM-ADA10 855BL-ADA10
		240V AC	855BS-ADA20	855BM-ADA20 855BL-ADA20
	Flashing power module	12V AC/DC	855BS-AFA12	855BM-AFA12 855BL-AFA12
		24V AC/DC	855BS-AFA24	855BM-AFA24 855BL-AFA24
		120V AC	855BS-AFA10	855BM-AFA10 855BL-AFA10
		240V AC	855BS-AFA20	855BM-AFA20 855BL-AFA20
	Strobe power module	24V AC/DC	855BS-ABA24	855BM-ABA24 855BL-ABA24
		120V AC	855BS-ABA10	855BM-ABA10 855BL-ABA10
		240V AC	855BS-ABA20	855BM-ABA20 855BL-ABA20

(1) This replacement part is for use only in 120V and 240V units. For 24V units, order complete power module replacement (Cat. No. 855BM-ABA24 or Cat. No. 855BL-ABA24).

(2) All power modules include a lamp.

**Table 46 - Bases and Miscellaneous Accessories and Replacement Parts**

Description		90 mm	120 mm	160 mm
<b>Replacement Bases</b>		<b>Cat. No.</b>	<b>Cat. No.</b>	<b>Cat. No.</b>
	Surface mount base <sup>(1)</sup>	855BS-ABS	855BM-ABS	855BL-ABS
	1/2 in. NPT conduit mount base	855BS-ABN	855BM-ABN	855BL-ABN
	Tube mount base	855BS-ABT	855BM-ABT	855BL-ABT
<b>Miscellaneous Accessories and Replacement Parts</b>		<b>Cat. No.</b>	<b>Cat. No.</b>	<b>Cat. No.</b>
	Lens gasket (must order in multiples of 5)	855BS-ALSG	855BM-ALSG	855BL-ALSG
	Surface mount gaskets (must order in multiples of 5)	855BS-ASFG	855BM-ASFG	855BL-ASFG
	Tube mount gaskets (must order in multiples of 5)	855BM-AMTG	855BM-AMTG	855BL-AMTG
	Magnetic mount	855BS-AMM	855BM-AMM	855BL-AMM
	Rough wall plate <sup>(2)</sup>	855BS-AWP	855BM-AWP	855BL-AWP
	Vertical bracket	855BS-AVM	855BM-AVM	855BL-AVM
	Screws and washers for rough wall plate and magnetic mount	855BS-ASCW	855BM-ASCW	
	Bonding kit (required for bonding between conduit connections)	855BM-ABK		

(1) When used outdoors surface mount base must be installed with rough wall plate for UL Type 4/4X/13 rating.

(2) Required for UL Type 4/4X/13 rating when using surface mount base outdoors.

## Specifications

**Table 47 - Technical**

Attribute		Value
Housing	Base material	Polycarbonate
	Lenses (all)	Polycarbonate, red, amber, yellow, green, blue, and clear
	Pole mount base	90 mm: polycarbonate 120 mm and 160 mm: aluminum die-cast, powder-coated
	Bracket	Powder-coated steel
Protection class		Type 4/4X/13 (surface mount base must be installed with rough wall plate for Type 4/4X/13 rating), IP65
Terminals (120 mm and 160 mm only)		Up to 2.5 mm <sup>2</sup> (14 AWG)
Temperature Ranges	Operating	-25...+60 °C (-13...+140 °F); -25...+50 °C (-13...+122 °F), 120 mm and 160 mm steady halogen, and 120/240V AC single-color LED
	Storage	-25...+85 °C (-13...+185 °F)
Mounting	Horizontal surfaces:	Indoor – direct to the surface, outdoor – with additional metal plate between surface and base part
	Vertical surfaces:	With bracket, for indoor and outdoor
	Tube or NPT conduit:	For indoor and outdoor

**Table 48 - Electrical and Mechanical**

Attribute		Steady Halogen			Flashing Halogen			Strobe			Rotating Light		
		160 mm	120 mm	90 mm	160 mm	120 mm	90 mm	160 mm	120 mm	90 mm	160 mm	120 mm	90 mm
Halogen bulb	[W]	50	35	20	50	35	20	–	–	–	50	35	20
Bulb socket		GY6.35	GY6.35	GY6.35	GY6.35	GY6.35	GY6.35	–	–	–	GY6.35	GY6.35	GY6.35
Strobe energy	[J]	–	–	–	–	–	–	31	15	7	–	–	–
Xenon strobe tube		–	–	–				Helical	Helical	Helical	–	–	–
Strobe tube socket		–	–	–				Terminals	Terminals	Terminals	–	–	–
Flashing/strobe frequency	[Hz]	–	–	–	1	1	1	1	1	1	–	–	–
Rotating speed (selectable via jumper wire)	[rpm]	–	–	–	–	–	–	–	–	–	90/180	90/180	90/180
Nominal current [A]	12V AC/DC	4	2.9	1.6	4.2	3	1.6	–	–	–	4.2	3.2	1.8
	24V AC/DC	2.1	1.5	0.8	2.1	1.5	0.8	1.9	1.3	0.48	2.3	1.7	0.95
	110/120V AC, 50/60 Hz	0.42	0.29	0.2	0.42	0.3	0.2	0.7	0.32	0.21	0.58	0.32	0.30
	230/240V AC, 50 Hz	0.21	0.15	0.09	0.21	0.15	0.09	0.35	0.15	0.12	0.39	0.17	0.27
Weight [g]	Surface mount	900	500	251	900	500	251	900	500	296	900	500	378
	Tube mount	900	500	424	900	500	424	900	500	469	900	500	551

		90 mm					
Attribute		Single-color LED		Three-color LED		Strobe LED	
Nominal current [mA]	24V AC/DC	–		155		–	
	110/120V AC, 50/60 Hz	–		100		70	
	230/240V AC, 50 Hz	–		105		70	
	24/48V AC/DC, 50/60 Hz	230...270 (16...60V AC/16...80V DC)		–		300 (19...52V AC/16...60V DC)	
	120/240V AC	38...43 mA (90...250V AC)		–		–	
Weight [g]	Surface mount	250					
	Tube mount	450					

**Table 49 - Standards Compliance and Certifications**

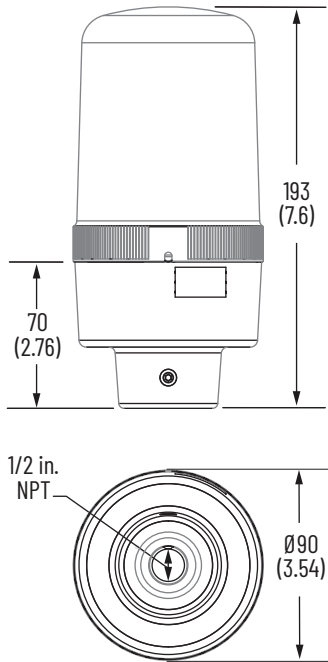
Standards Compliance	Certifications
<ul style="list-style-type: none"> <li>• UL 508</li> <li>• EN/IEC 60947-1</li> <li>• EN/IEC 60947-5-1</li> <li>• CSA C22.2 No. 14</li> </ul>	<ul style="list-style-type: none"> <li>• cULus Listed (File No. E14840, Guides NKCR, NKCR7)</li> <li>• CE Marked</li> </ul>

## Approximate Dimensions

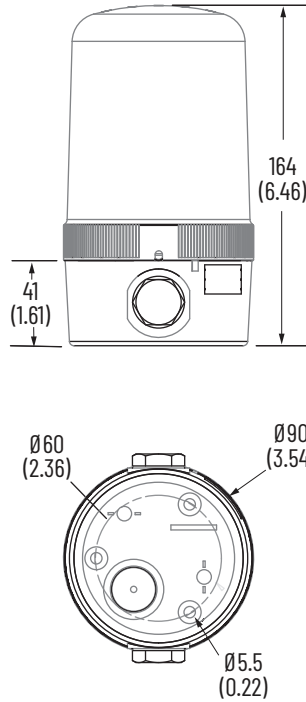
Dimensions in millimeters (inches). Dimensions are not intended to be used for manufacturing purposes.

### 90 mm Beacon

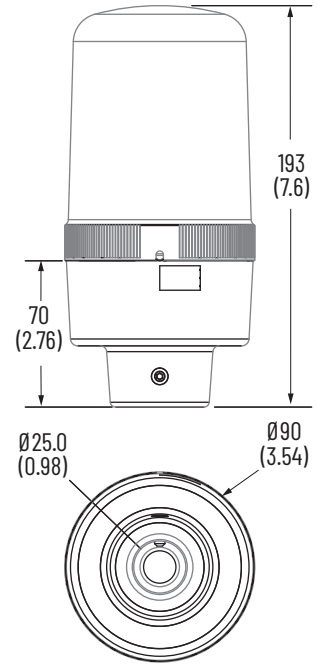
**NPD Conduit Mount**



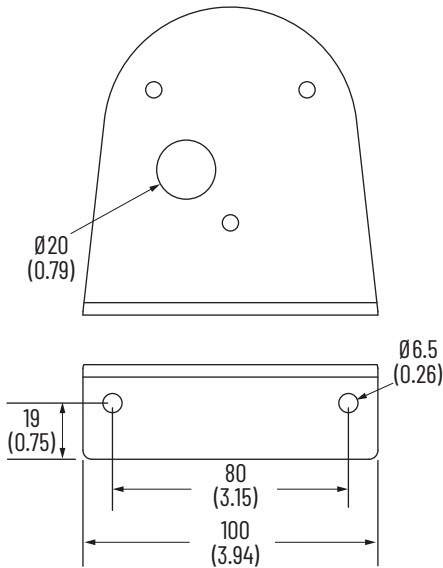
**Surface Mount**



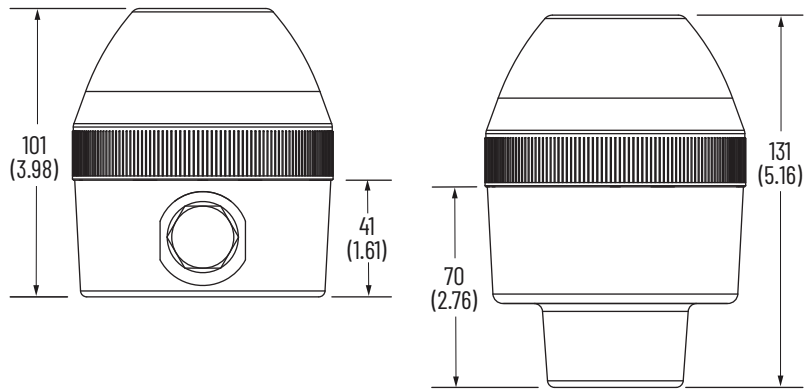
**Tube Mount**



**Vertical Bracket**

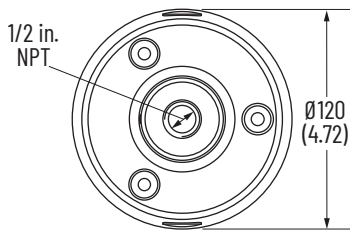
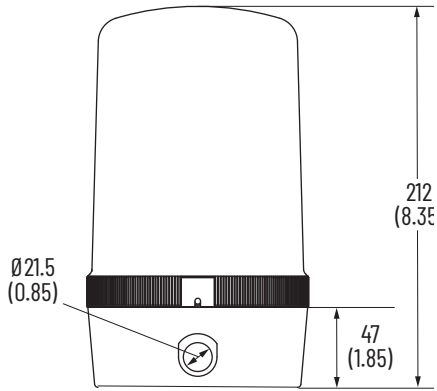


**LED Beacon**

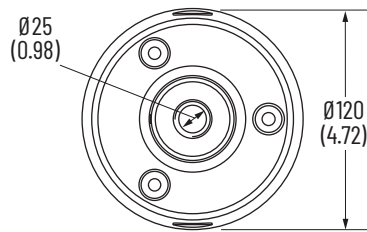
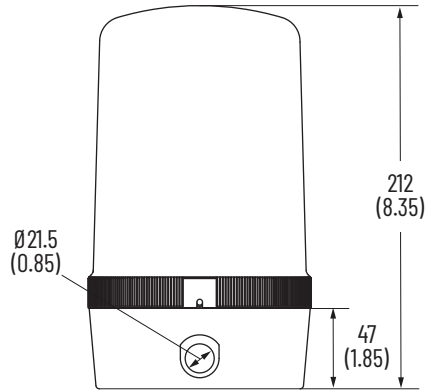


120 mm Beacon

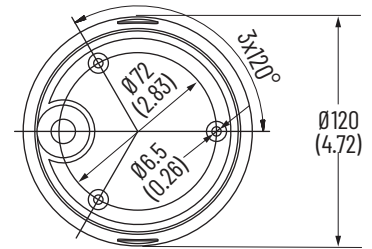
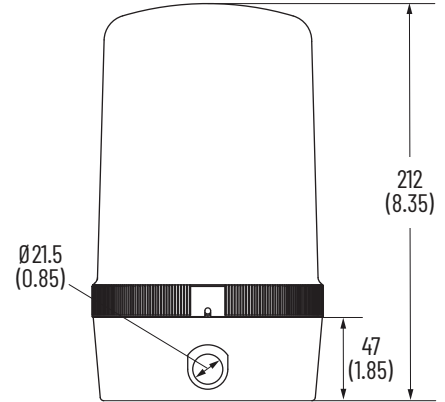
**NPD Conduit Mount**



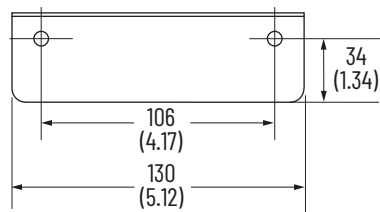
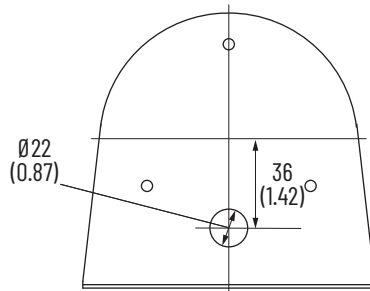
**Surface Mount**



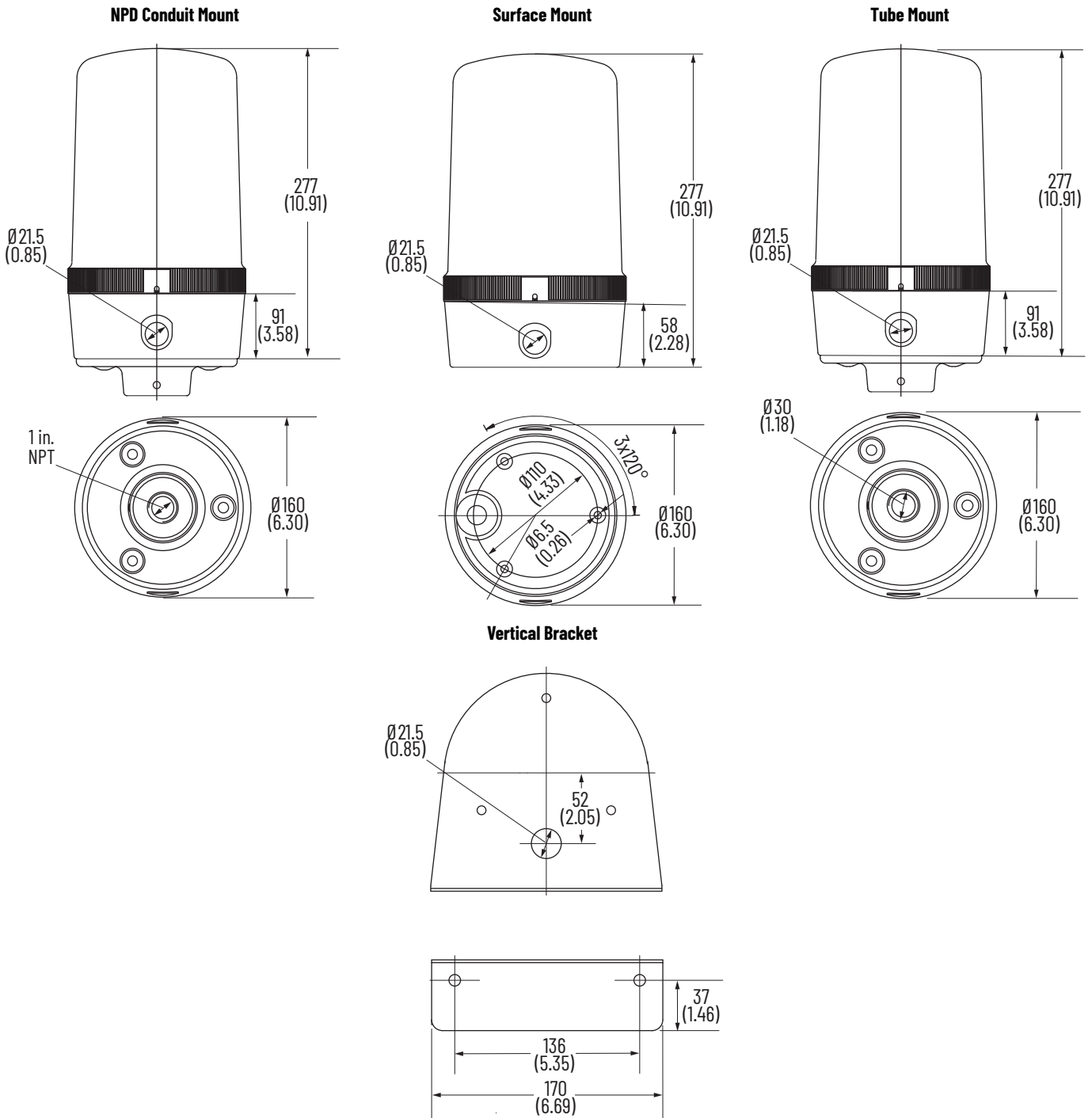
**Tube Mount**



**Vertical Bracket**



160 mm Beacon



# Bulletin 855R Industrial Round Beacons

This product line is available as separate components or as complete factory pre-configured beacons to provide flexibility in your applications. You can select from a wide range of mounting options, voltages, and colors. These devices are available in 110 mm diameter.



## 110 mm Complete Beacons

**Steady, Multi-function,  
High-brightness with Low-profile Base**



**Steady, Multi-function,  
High-brightness with NPT Base**



**Compact  
with Low-profile Base**



**Compact  
with NPT Base**



855R -  B   S   45   TL   4   
 a b c d e

a	
Housing Color	
Code	Description
B	Black

b	
Base Type	
Code	Description
S	Surface mount, low profile
N	1/2 in. NPT conduit or Surface mount

c	
Voltage	
Code	Description
24	24V AC/DC
45	120/240V AC/DC <sup>(1)</sup>
10	120V AC <sup>(2)</sup>
20	240V AC <sup>(2)</sup>

d	
Function	
Code	Description
TL	Steady LED
MF	Multi-function LED
HMF	High-brightness, multi-function LED
ML	Multi-color LED <sup>(3)</sup>
CMF	Compact multi-function <sup>(4)</sup>
CML	Compact multi-color <sup>(3)(4)</sup>

e	
Lens Color	
Code	Description
3	Green
4	Red
5	Amber
6	Blue
7	Clear
8	Yellow
-	Blank

(1) For use with TL function only.

(2) Not valid with TL function.

(3) Lens color must be blank for ML and CML.

(4) Uses opaque white lens.

# 110 mm LED Modules

**Steady, Multi-function,  
High-brightness**



**Multi-color**



**Compact Multi-function,  
Compact Multi-color**



855R -  $\frac{24}{a}$   $\frac{TL}{b}$   $\frac{3}{c}$

a	
Voltage	
Code	Description
24	24V AC/DC
45	120/240V AC/DC <sup>(1)</sup>
10	120V AC <sup>(2)</sup>
20	240V AC <sup>(2)</sup>

b	
Function	
Code	Description
TL	Steady LED
MF	Multi-function LED
HMF	High-brightness, multi-function LED
ML	Multi-color LED <sup>(3)</sup>
CMF	Compact multi-function <sup>(4)</sup>
CML	Compact multi-color <sup>(3)(4)</sup>

c	
Lens Color	
Code	Description
3	Green
4	Red
5	Amber
6	Blue
7	Clear
8	Yellow
—	Blank

- (1) For use with TL function only.
- (2) Not valid with TL function.
- (3) Lens color must be blank for ML and CML.
- (4) Uses opaque white lens.

**Low-profile, surface-mount**



**Surface/NPT  
Surface/Tube-mount**



**Audible**



855R -  $\frac{B}{a}$   $\frac{SL}{b}$








a	
Housing Color	
Code	Description
B	Black

b	
Base Type <sup>(1)</sup>	
Code	Description
SL	Surface-mount, low-profile
SN	1/2 in. NPT or surface-mount
ST	25 mm tube or surface-mount <sup>(2)</sup>
SA24	Surface-mount, audible, 24V AC/DC
SA10	Surface-mount, low-profile, 120V AC
SA20	Surface-mount, low-profile, 240V AC

- (1) All bases are UL Type 4, 4x, 13 IP66/67 except Base Type ST.
- (2) For Base Type ST: Standards compliance and certifications are dependent on installation.  
 For surface-mount: UL Type 4, 4x, 13 IP 66/67  
 For mounting on a 25 mm tube: UL Type 12, IP54  
 For sideways or upside down mount: UL Type 1, IP 52



## Accessories

	Description		Cat. No.
Brackets		Vertical Mount Metal Bracket for Surface-mount Bases (855R-BSL, 855R-BSN, 855R-BST)	855R-ABVM
		Vertical Mount Metal Bracket for Audible Bases (855R-BSA24, 855R-BSA10, 855R-BSA20)	855R-ABVA
		Vertical Mount Plastic Bracket for Low-profile Surface-mount Base (855R-BSL)	855R-ABVP
Gaskets		Surface mount base replacement flat gasket	855R-ASFG
		Vertical Plastic bracket replacement wall gasket kit (also includes 3 seal washers)	855R-AVG
Cable Glands		M16 Cable gland for use with low-profile surface mount base (855R-BSL)	855R-ABM16
		M20 Cable gland for use with 855R-BSN, 855R-BST	855R-ABM20

## Specifications

Table 50 - Technical

Attribute		Value
Housing	Base material:	polycarbonate
	Lenses (all):	polycarbonate, red, amber, yellow, green, blue, and clear
	Brackets:	855R-ABVM/855R-ABVA: powder-coated steel 855R-ABVP: polycarbonate
Ingress Protection Class	Surface/NPT/audible bases:	UL Type 4/4X/13 IP66/67
	Tube mount:	UL Type 12 IP54 unless surface mounted
Impact Resistance		IK08
Terminals		up to 2.5 mm <sup>2</sup> (14 AWG)
Temperature Ranges	Operating:	-30...+60 °C (-22...+140 °F)
	Storage:	-30...+80 °C (-22...+176 °F)
Mounting	Horizontal surfaces:	for indoor and outdoor
	Vertical surfaces:	with bracket, for indoor and outdoor
	Tube or NPT conduit:	for indoor and outdoor


Table 51 - Electrical and Mechanical

Attribute		Single-color	Multi-function	High-brightness	Multi-color	Compact Multi-function	Compact Multi-color
Nominal current [mA]	24V AC/DC	249	532 (red 415)	827 (red 663)	339	172	149
	110/120V AC, 50/60 Hz	—	135 (red 112)	214 (red 166)	100	48	44
	230/240V AC, 50/60 Hz	—	90 (red 63)	137 (red 105)	67	39	35
	120/240V AC, 50/60 Hz	107/73 (120/79 red)	—	—	—	—	—
Weight [g]	Surface mount:	261			210		
	1/2" NPT mount:	267			230		

**Table 52 - Standards Compliance and Certifications**

Standards Compliance	Certifications
<ul style="list-style-type: none"> <li>• AENSI/UL 60947-1 and ANSI/UL 60947-5-1</li> <li>• EN/IEC 60947-1</li> <li>• EN/IEC 60947-5-1</li> <li>• CAN/CSA C22.2 No. 60947-1-13 and CAN/CSA C22.2 No. 60947-5-1-14</li> </ul>	<ul style="list-style-type: none"> <li>• c-UL-us Listed (File No. E14840, Guides NKCR, NKCR7)</li> <li>• CE, UKCA, RCM, KC, Morocco</li> </ul>

**Table 53 - Tone Selection Table**

**Position the DIP Switches to your desired group of tone settings.**  Indicates Switch Position

























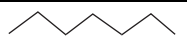

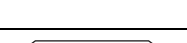




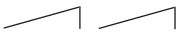

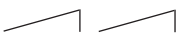

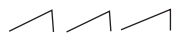



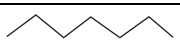

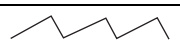

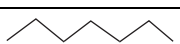


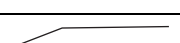

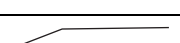

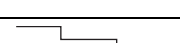
DIP Switch	Stage 1	Tone Type	Frequency (Hz)	Tone Visual	Repeat Rate	Typical Application	Stage 2	Stage 3
	Tone 01	continuous	660	—————		Swedish alarm	Tone 16	Tone 12
	Tone 02	continuous	1000	—————		PFEER toxic gas	Tone 16	Tone 25
	Tone 03	continuous	2400	—————			Tone 21	Tone 17
	Tone 04	intermittent	420	- - - - -	0.625 s on / 0.625 s off	Australian alert AS1670	Tone 21	Tone 01
	Tone 05	intermittent	660	- - - - -	1.8 s on / 1.8 s off	Swedish alarm	Tone 21	Tone 01
	Tone 06	intermittent	660	- - - - -	0.15 s on / 0.15 s off	Swedish alarm	Tone 16	Tone 01
	Tone 07	intermittent	970	- - - - -	1 s on, 1 s off	PFEER Alarm, BS5839-1:2002	Tone 18	Tone 01
	Tone 08	intermittent	970 (950)	- - - - -	0.5 s on/0.5 s off x3 then 1 s off	ISO 8201 low tone, US Temporal	Tone 16	Tone 03
	Tone 09	intermittent	800	- - - - -	0.25 s on / 1 s off		Tone 27	Tone 03
	Tone 10	intermittent	700	- - - - -	0.15 s on / 0.15 s off, total 1 min.	Swedish alarm SS 03 1711	Tone 18	Tone 02
	Tone 11	intermittent	720	- - - - -	0.7 s on / 0.3 s off	Industrial alarm Germany	Tone 02	Tone 29
	Tone 12	intermittent	2400	- - - - -	0.5 s on / 0.5 s off		Tone 03	Tone 01
	Tone 13	intermittent	2850	- - - - -	0.5 s on / 0.5 s off x3 then 1 s off	ISO 8201 high tone, US Temporal	Tone 03	Tone 17
	Tone 14	alternating	440 - 544		0.4 s (440 Hz) / 0.1 s (554 Hz)	AFNOR France, NFS 32-001	Tone 16	Tone 01
	Tone 15	alternating	544 - 440		1 Hz	Swedish alarm	Tone 01	Tone 16
	Tone 16	alternating	800 - 1000		2 Hz		Tone 02	Tone 09
	Tone 17	alternating	2400 - 2900		2 Hz		Tone 03	Tone 01
	Tone 18	alternating	1000 - 2000		1 Hz	Singapore	Tone 02	Tone 03
	Tone 19	sweeping	500 - 1500		10 Hz		Tone 02	Tone 01
	Tone 20	sweeping	150 - 1000		rising 10 s, 40 s on, falling 10 s	Industrial alarm Germany	Tone 25	Tone 29

Table 53 - Tone Selection Table (Continued)

**Position the DIP Switches to your desired group of tone settings.**  ◀ Indicates Switch Position

DIP Switch	Stage 1	Tone Type	Frequency (Hz)	Tone Visual	Repeat Rate	Typical Application	Stage 2	Stage 3
	Tone 21	continuous	400		simulated horn		Tone 16	Tone 02
	Tone 22	sweeping	500 - 1200		rising in 3.75 s / 0.25 s off	Australian evacuation AS 2220	Tone 02	Tone 09
	Tone 23	sweeping	500 - 1200		rising in 3.5 s / 0.5 s off	Netherlands NEN 2575:2000	Tone 02	Tone 09
	Tone 24	sweeping	500 - 1200		0.5 s on / 0.5 s off x3 / 1.5 s off	Australia AS1670 evacuation	Tone 02	Tone 09
	Tone 25	sweeping	1200 - 500		1 Hz	evacuation Germany, DIN 33404-3	Tone 02	Tone 32
	Tone 26	sweeping	500 - 1200		0.3Hz		Tone 01	Tone 32
	Tone 27	sweeping	1400 - 1600		rising in 1 s / falling in 0.5 s	NFC 48-265	Tone 02	Tone 09
	Tone 28	sweeping	2400 -2900		1 Hz		Tone 17	Tone 03
	Tone 29	bell					Tone 16	Tone 02
	Tone 30	slow rise	500 - 2400		siren rising in 3 s, then const. 2400 Hz		Tone 16	Tone 01
	Tone 31	slow rise	300 - 1200		siren rising in 3 s, then const. 1200 Hz		Tone 16	Tone 01
	Tone 32	3-tone	660-550-440		repeating 3 tone gong, 7 s		Tone 29	Tone 01

## Approximate Dimensions

Dimensions in millimeters (inches). Dimensions are not intended to be used for manufacturing purposes

Standard Lens with:		
NPT Conduit, Surface-mount	Low-profile, Surface-mount	M25 Tube, Surface-mount
<p>174 (6.85)</p> <p>1/2 in. NPT</p> <p>Ø110 (4.33)</p>	<p>143 (5.63)</p> <p>Ø110 (4.33)</p>	<p>174 (6.85)</p> <p>Ø110 (4.33)</p>



The drawing above, *M25 Tube, Surface-mount*, does not represent an actual catalog number and parts need to be purchased separately.

Compact Lens with:		
NPT Conduit, Surface-mount	Low-profile, Surface-mount	M25 Tube, Surface-mount
<p>118 (4.65)</p> <p>1/2 in. NPT</p> <p>Ø110 (4.33)</p>	<p>87 (3.43)</p> <p>Ø110 (4.33)</p>	<p>118 (4.65)</p> <p>Ø25 (0.98)</p> <p>Ø110 (4.33)</p>

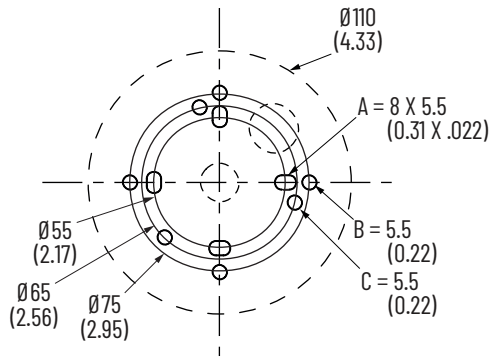


The drawing above, *M25 Tube, Surface-mount*, does not represent an actual catalog number and parts need to be purchased separately.

**Audible Bases:**

Standard Lens with Audible Base	Compact Lens with Audible Base	Audible Base Mounting

**Surface Mounting:**



**Vertical Mount Brackets:**

Plastic, Cat. No. 855R-ABVP	Metal, Cat. No. 855R-ABVA and 855R-ABVM

# Bulletin 855D/855F Compact Control Tower™ Stack Lights

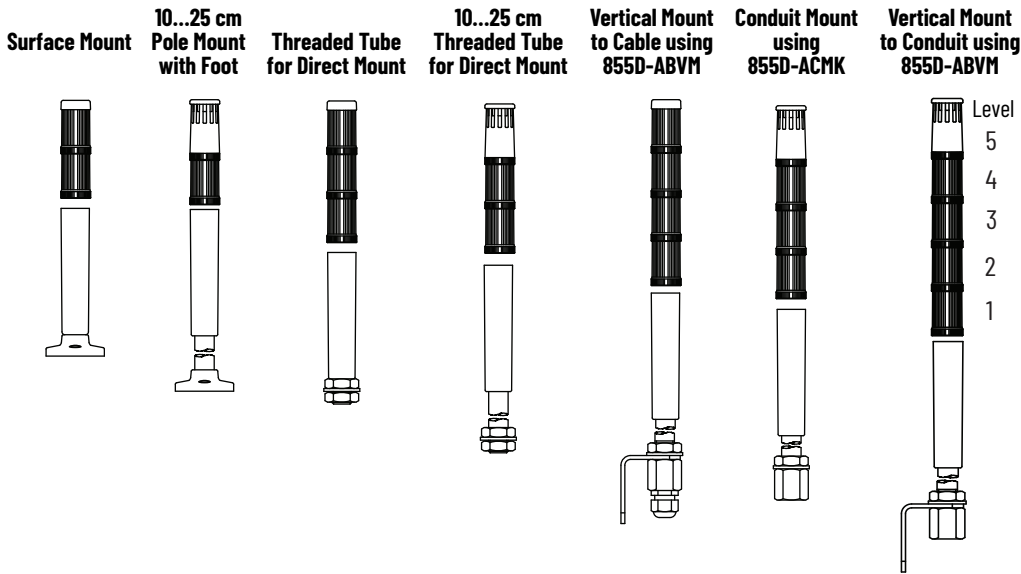
This product line includes 30 mm (855D) and 70 mm (855F) stack lights.

## 30 mm Compact Control Tower Stack Lights

These devices are available with UL Type 4/4X/13, IP65 ratings to meet the most challenging panel and on-machine applications.



### Pre-assembled and Pre-wired Tower Lights, 1...5 Modules



855D - P00 SC20 B 24 Y 3 Y 4 Y 5 L 7 P 1  
 a b c d e f g f g f g f g f g f g  
 (Level 1, f+g) (Level 2, f+g) (Level 3, f+g) (Level 4, f+g) (Level 5, f+g)

a	
Base Type	
Code	Description
P00	Surface mount
P10	10 cm aluminum pole mount with foot
P25	25 cm aluminum pole mount with foot
T00	0 cm M20 metric threaded tube for direct mount
T10	10 cm M20 metric threaded tube for direct mount
T25	25 cm M20 metric threaded tube for direct mount
Q10	10 cm quick release mount pole
Q25	25 cm quick release mount pole

b	
Network Option	
Code	Description
Blank	No network option

c	
Cable Connector and Length <sup>(1)</sup>	
Code	Description
SC20	Stranded cable, 2 m (6.6 ft), yellow jacket
Blank	No cable (only for Q10 or Q25 base types)

(1) The SC20 cable must be ordered for all bases, except the Q10 and Q25 bases.

d Housing Color	
Code	Description
B	Black
G	Gray

e Voltage	
Code	Description
24	24V AC/DC
10	120V AC
20	240V AC

f Module Type <sup>(1) (2)</sup>	
Code	Description
Y	Steady LED
L	Flashing LED
C	Piezo sound alarm, continuous tone
P	Piezo sound alarm, pulsing tone
Q	Dual-circuit piezo sound alarm <sup>(3)</sup>

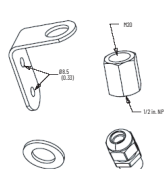


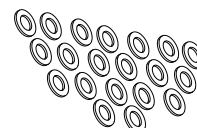




g Lens Color/Sound	
Code	Description
1	Sound module
3	Green
4	Red
5	Amber
6	Blue
7	Clear
8	Yellow

(1) Sound module types (C, P, Q) must be on the top-most level, they must be configured with Lens Color/Sound Code 1, and only one sound module is allowed per assembly.

(2) Light module types (Y, L) can only be configured with Lens Color/Sound Codes 3, 4, 5, 6, 7, or 8.

(3) If the dual-circuit sound module (Q) is selected, the maximum number of light modules that are allowed is three (two circuits are required for the dual-circuit sound module).

## Accessories

	Description		Cat. No.
	Vertical Mount Kit	Kit Includes: L-bracket Thread adapter Black cable gland (1/2 in. NPT) Plastic washer	855D-ABVM
	Conduit Mount Kit	M20 to 1/2 in. NPT thread adapter	855D-ACMK
	Direct Mount Kit	Kit Includes: M20 nut Plastic washer Metal lock washer	855D-ARDM
—	Base Foot Gasket (Bag of 5)	bag of five base foot gaskets	855D-APFG
	Mounting Screw Washer Kit	Replacement flat washers are used to provide a seal where the mounting screw meets the pole base. 1 kit includes 20 pieces	855T-AMSG
	Field-installable 4-pin DC Micro style terminal chamber	Additional terminal chamber styles are available <a href="#">here</a> .	871A-TS4-DM
	Locking ring for Bulletin 854J, 855D, and 855E quick release bases	Color: Black	855D-ABQLR
	Locking ring for quick release base	Color: Gray	855D-AGQLR
	Internal gasket for quick release base	With an order quantity of 1, receive bag of five gaskets	855D-AQG
	Quick-release mounting base with gasket		855D-AQMB

## Specifications

**IMPORTANT** Based on the weight and style of mounting, tower lights are subject to damage from shock and vibration. [Table 54](#) provides reference guidelines are reference guidelines for maximum acceptable conditions.

**Table 54 - Mechanical**

Standard Bases		Shock [G]	Vibration [G]
Surface-mount base or 10cm or 25 cm aluminum pole base	1 module stack	150	2.5
	3 module stack	45	2.5
	5 module stack	35	2.0

**Table 55 - Environmental**

Attribute		Value
Ingress ratings	Light modules	IP65/UL Type 4/4X/13
	Sound modules	
	Surface, pole, vertical, tube mount bases	
Temperature ranges	Operating	-25...+50 °C (-13...+122 °F)
	Storage	-25...+85 °C (-13...+185 °F)

**Table 56 - Materials**

Part	Material
Bases, caps, lens covers, sound module housings	Polycarbonate
Rubber seals and gaskets	Nitrile rubber
Pole (for aluminum pole assembly)	Aluminum
Pole base footing (for aluminum pole base)	Polycarbonate
Insulation sleeve (for pole insulation)	PVC
Mounting screw washers	Polyamide

**Table 57 - Estimated Light Output<sup>(1)</sup>**

Attribute	Estimated Light Output [mcd]
Steady, flashing, red	1000
Steady, flashing, amber	800
Steady, flashing, green	1500
Steady, flashing, yellow	700
Steady, flashing, blue	250
Steady, flashing, white	1000

(1) Light output values are calculated from the LED Data Sheet and show typical values of luminous density. These values are not exact because the knurling in the lens affects the light distribution and because the viewing angle of the LED that directly relates to the Cd output value, is not identical for all LEDs.

**Table 58 - Operating Voltage**

Device	Operating Voltage		
	24V AC/DC	120V AC	240V AC
Light modules and sound modules	24V AC/DC (±10%)	110V AC, 50 Hz (±10%) 120V AC, 60 Hz (±10%)	230V AC, 50 (±10%) 240V AC, 60 (±10%)

**Table 59 - Lamp Life Ratings (Design Life) Average Life Under Static, No Vibration, Conditions**

Device	Lamp Life Rating		
	24V AC/DC	120V AC	240V AC
LED modules	100,000 hr		
Sound modules	20,000 hr		



**Table 60 - Current Consumption**

Device		Current Consumption [mA]		
		24V AC/DC	120V AC	240V AC
Light modules	Steady or flashing LED	20	22	21
Piezo-style sound modules	Single- and dual-circuit	40	22	21

**Table 61 - Flashing Frequency (Light Only Modules)**

Device	Flashing Frequency
Flashing LED modules	Approximately 2 Hz

**Table 62 - Decibel Rating (Sound Modules) <sup>(1)</sup>**

Device	Decibel Rating
Piezo sound module	85 dB(A) (+2 dB/-5 dB)

(1) All dB(A) ratings are determined at a distance of 1 m (3.3 ft) from the sound module.

**Table 63 - Leakage Current Impact**

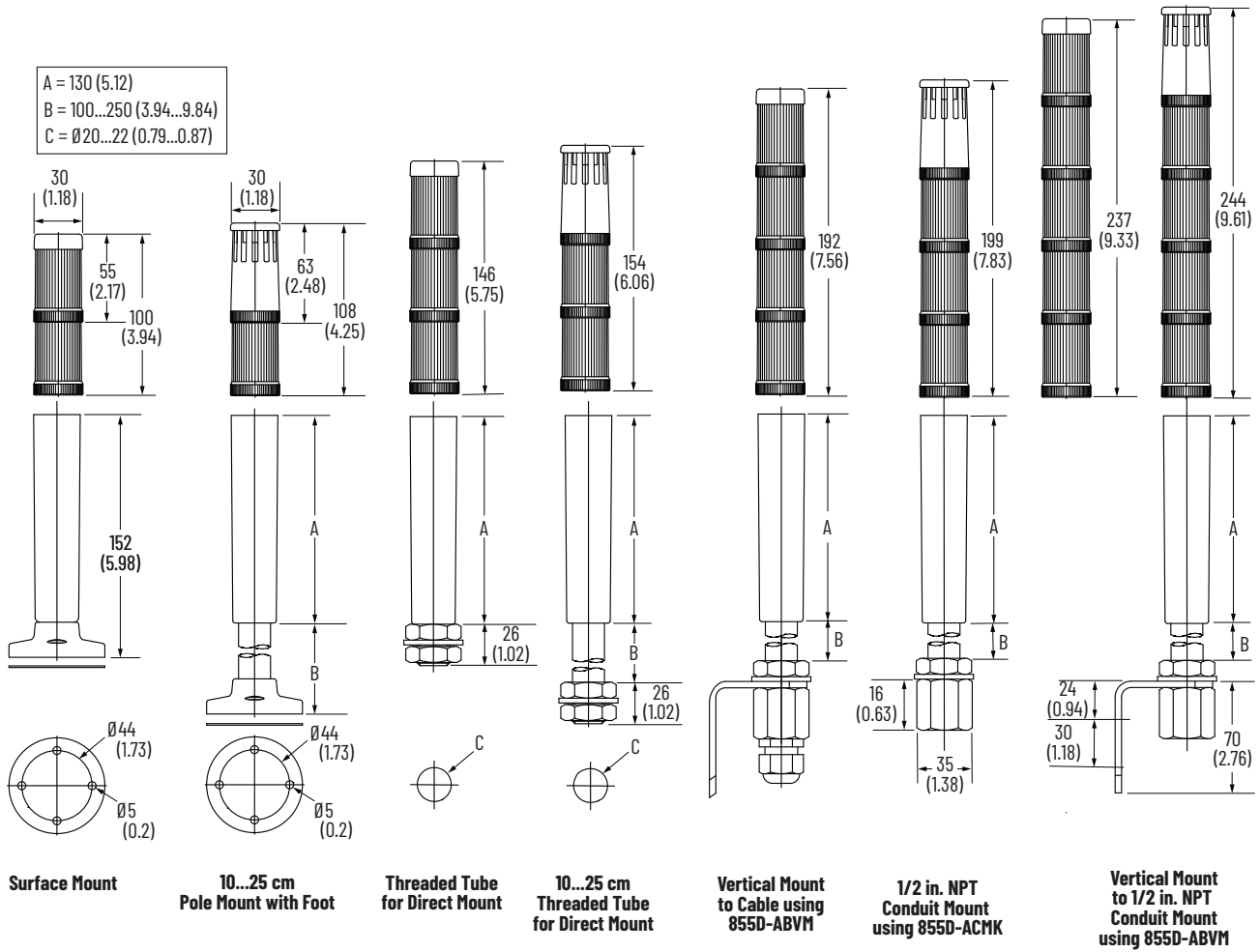
All light and sound modules can absorb up to 3 mA of leakage current from solid-state outputs without module activation.

**Table 64 - Standards and Certifications**

Standards Compliance	Certifications
<ul style="list-style-type: none"> <li>• UL 508</li> <li>• CSA C22.2 No. 14</li> <li>• EN/IEC 60947-1</li> <li>• EN/IEC 60947-5-1</li> </ul>	<ul style="list-style-type: none"> <li>• cULus Listed (File No. E14840, Guides NKCR, NKCR7)</li> </ul>

## Approximate Dimensions

Dimensions in millimeters (inches). Dimensions are not intended to be used for manufacturing purposes.



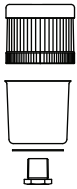
# 70 mm Compact Control Tower Stack Lights

These devices are available with UL Type 4/4X/13, IP65 ratings to meet the most challenging panel and on-machine applications.

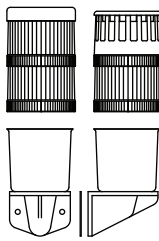


## Pre-assembled and Pre-wired Tower Lights, 1...5 Modules

**Surface Mount (SB)**



**Vertical Mount (VM)**



**Pole Mount (P10 and P25)**



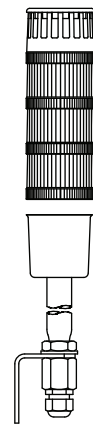
**Direct Mount (T10 and T25)**



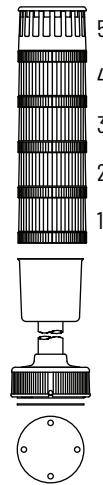
**1/2 in. NPT Conduit Mount using T10 or T25 with 855F-ACMK**



**Vertical Mount to Cable using T10 or T25 with 855F-ABVM**



**Quick-release Base**



855F - **P10** **SC20** **B** **24** **Y** **3** **Y** **4** **Y** **5** **L** **7** **P** **1**  
 a b c d e f e f e f e f e f e f e f  
 (Level 1, e+f) (Level 2, e+f) (Level 3, e+f) (Level 4, e+f) (Level 5, e+f)

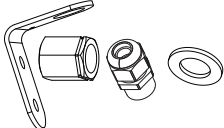


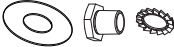


a		b		c		d
Base Type		Cable Connector and Length <sup>(1)</sup>		Housing Color		Voltage
Code	Description	Code	Description	Code	Description	Code
SB	Surface mount with 1/2 in. NPT threaded connector and mounting nut	SC20	Stranded cable, 2 m (6.6 ft), yellow jacket	B	Black	24
P10	10 cm aluminum pole mount with foot	Blank	No cable (only for Q10 or Q25 base types)			10
P25	25 cm aluminum pole mount with foot					20
T10	10 cm threaded tube for direct mount					
T25	25 cm threaded tube for direct mount					
VM	Vertical mount					
Q10	10 cm quick release mount pole					
Q25	25 cm quick release mount pole					

(1) The SC20 cable must be ordered for all bases, except the Q10 and Q25 bases.

e		f	
Module Type <sup>(1) (2)</sup>		Lens Color/Sound	
Code	Description	Code	Description
Y	Steady LED	1	Sound module
L	Flashing LED	3	Green
C	Piezo sound alarm, continuous tone	4	Red
P	Piezo sound alarm, pulsing tone	5	Amber
Q	Dual-circuit piezo sound alarm <sup>(3)</sup>	6	Blue
		7	Clear
		8	Yellow

- (1) Sound module types (C, P, Q) must be on the top-most level, they must be configured with Lens Color/Sound Code 1, and only one sound module is allowed per assembly.
- (2) Light module types (Y, L) can only be configured with Lens Color/Sound codes 3, 4, 5, 6, 7, or 8.
- (3) If the dual-circuit sound module (Q) is selected, the maximum number of light modules that are allowed is three (two circuits are required for the dual-circuit sound module).

## Accessories

	Description	Cat. No.
	Vertical Mount Kit	855F-ABVM
	Conduit Mount Kit	855F-ACMK
	Direct Mount Kit	855F-ARDM
	Surface Mount Kit	855F-ASMK
	Mounting Screw Washer Kit	855T-AMSG
	Field-installable 4-pin DC Micro style terminal chamber	871A-TS4-DM

## Specifications

**IMPORTANT** Based on the weight and style of mounting, tower lights are subject to damage from shock and vibration. [Table 54](#) provides reference guidelines are reference guidelines for maximum acceptable conditions.

**Table 65 - Mechanical**

Standard Bases		Shock [G]	Vibration [G]
Surface-mount base or 10 cm or 25 cm aluminum pole base	1 module stack	150	2.5
	3 module stack	45	2.5
	5 module stack	35	2.0

**Table 66 - Environmental**

Attribute	Value	
Ingress ratings	Light modules	UL Type 4/4X/13, IP65
	Sound modules	UL Type 4/4X/13, IP65
	Surface, pole, vertical, tube mount bases	UL Type 4/4X/13, IP65
Temperature ranges	Operating	-25...+60 °C (-13...+140 °F)
	Storage	-25...+85 °C (-13...+185 °F)

**Table 67 - Materials**

Part	Material
Bases, caps, lens covers, sound module housings	Polycarbonate
Rubber seals and gaskets	Nitrile rubber
Pole (for aluminum pole assembly)	Aluminum
Pole base footing (for aluminum pole base)	Polycarbonate
Insulation sleeve (for pole insulation)	PVC
Mounting screw washers	Polyamide

**Table 68 - Estimated Light Output <sup>(1)</sup>**

Attribute	Estimated Light Output [mcd]
Steady, flashing, Red	1000
Steady, flashing, amber	800
Steady, flashing, green	1500
Steady, flashing, yellow	700
Steady, flashing, blue	250
Steady, flashing, white	1000

(1) Light output values are calculated from the LED Data Sheet and show typical values of luminous density. These values are not exact because the knurling in the lens affects the light distribution and because the viewing angle of the LED that directly relates to the Cd output value, is not identical for all LEDs.

**Table 69 - Operating Voltage**

Device	Operating Voltage		
	24V AC/DC	120V AC	240V AC
Light modules and sound modules	24V AC/DC (±10%)	110V AC, 50 Hz (±10%) 120V AC, 60 Hz (±10%)	230V AC, 50 Hz (±10%) 240V AC, 60 Hz (±10%)

**Table 70 - Lamp Life Ratings (Design Life) Average Life Under Static, No Vibration, Conditions**

Device	Lamp Life Rating		
	24V AC/DC	120V AC	240V AC
LED modules		100,000 hr	
Sound modules		20,000 hr	

**Table 71 - Current Consumption**

Device	Current Consumption [mA]			
	24V AC/DC	120V AC	240V AC	
Light modules	Steady or flashing LED	20	22	21
Piezo-style sound modules	Single- and dual-circuit	53	22	21

**Table 72 - Flashing Frequency (Light Only Modules)**

Device	Flashing Frequency
Flashing LED modules	Approximately 2 Hz

**Table 73 - Decibel Rating (Sound Modules) <sup>(1)</sup>**

Device	Decibel Rating
Piezo sound module	100 dB(A) (+2 dB/-5 dB)

(1) All dB(A) ratings are determined at a distance of 1 m (3.3 ft) from the sound module.

**Table 74 - Leakage Current Impact**

All light and sound modules can absorb up to 3 mA of leakage current from solid-state outputs without module activation.

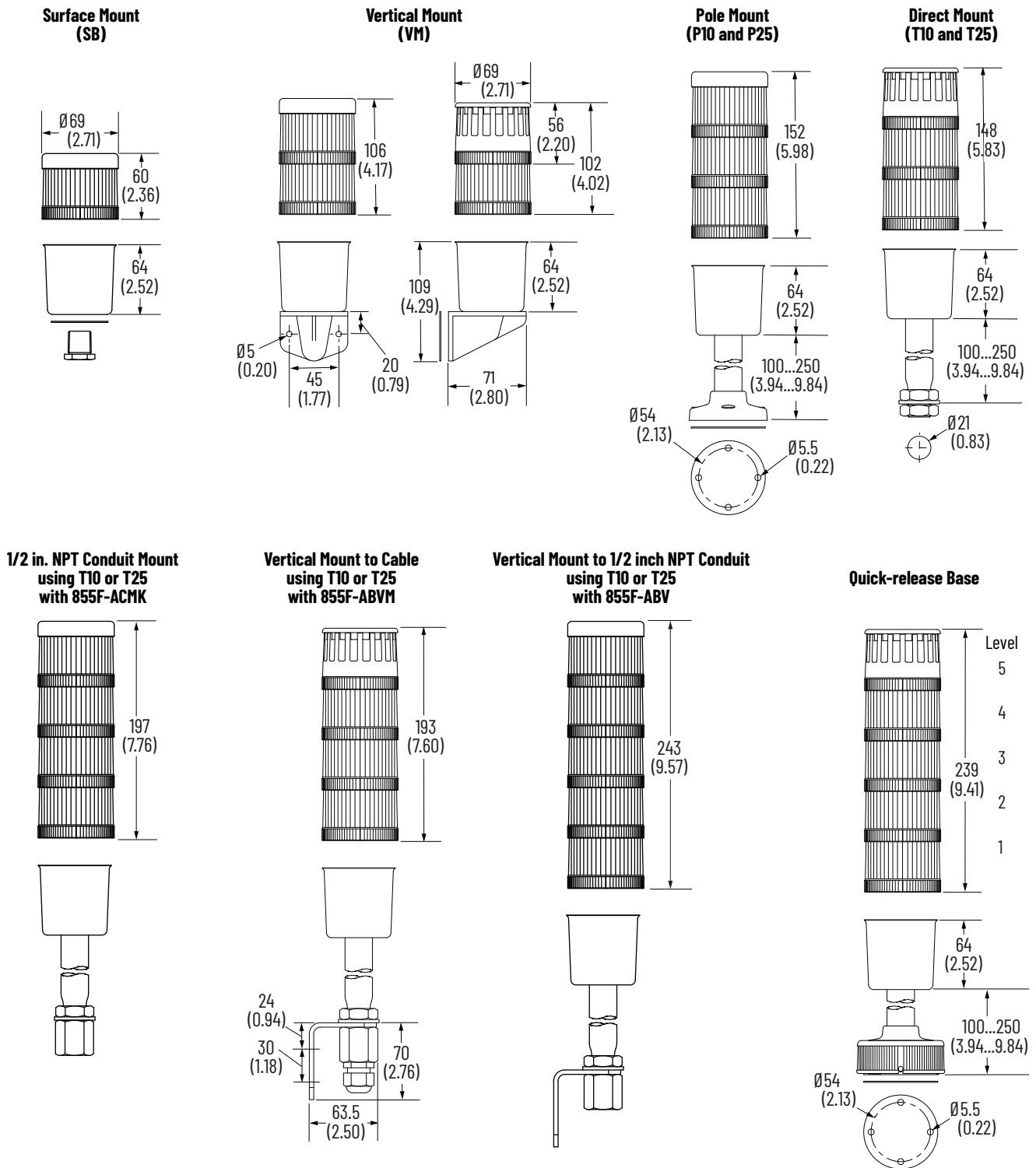
**Table 75 - Standards and Certifications**

Standards Compliance	Certifications
<ul style="list-style-type: none"> <li>UL 508</li> <li>CSA C22.2 No. 14</li> <li>EN/IEC 60947-1</li> <li>EN/IEC 60947-5-1</li> </ul>	<ul style="list-style-type: none"> <li>cULus Listed (File No. E14840, Guides NKCR, NKCR7)</li> <li>CE Marked</li> </ul>

## Approximate Dimensions

Dimensions in millimeters (inches). Dimensions are not intended to be used for manufacturing purposes.

Figure 1 - Assembled Stacks



# Bulletin 854J/854K Control Tower™ Stack Lights

This product line includes 40 mm (854J) and 60 mm (854K) stack lights.

## 40 mm Control Tower Stack Lights

These devices provide reliable, high-performance, high-visibility machine multi-status indication in a cost-effective package. They feature IP66 enclosure rating and is rated for indoor and outdoor use, which makes them an ideal signaling solution for a broad range of applications. With a wide variety of mounting bases available, they can be installed in any orientation – vertical, sideways, or upside-down – to best suit the application. They can be pre-assembled to save time or ordered as separate light and sound modules for customized field assembly.



Steady LED Module

## Light Modules

854J -  $\frac{10}{a}$   $\frac{TL}{b}$   $\frac{4}{c}$

a	
Voltage	
Code	Description
00	0...250V AC/DC (no-lamp module) <sup>(1)</sup>
24	24V AC/DC <sup>(2)</sup>
10	120V AC <sup>(2)</sup>
20	240V AC <sup>(2)</sup>

b	
Light Module Type	
Code	Description
XN	Steady no lamp <sup>(3)</sup>
TL	Steady LED
GL	Flashing LED
BL	LED strobe, single flash

c	
Lens Color	
Code	Description
3	Green
4	Red
5	Amber
6	Blue
7	Clear
8	Yellow

- (1) Can only be selected with module type XN, voltage code 00. Accepts 4 W socket mount incandescent lamp types only.
- (2) Not valid with module type XN.
- (3) Incandescent lamps (catalog numbers 854J-L24, 854J-L10, and 854J-L20) must be purchased separately.

Voltage	Color	Steady Incandescent	Steady LED	Flashing LED	Strobe LED
		Cat. No. 854J- <sup>(1)</sup>	Cat. No. 854J-	Cat. No. 854J-	Cat. No. 854J-
0...250V AC/DC	Green	00XN3	–	–	–
	Red	00XN4	–	–	–
24V AC/DC	Green	–	24TL3	24GL3	24BL3
	Red	–	24TL4	24GL4	24BL4
	Amber	–	24TL5	24GL5	24BL5
120V AC	Green	–	10TL3	10GL3	10BL3
	Red	–	10TL4	10GL4	10BL4
	Amber	–	10TL5	10GL5	10BL5
240V AC	Green	–	20TL3	20GL3	20BL3
	Red	–	20TL4	20GL4	20BL4
	Amber	–	20TL5	20GL5	20BL5

(1) No lamp included; must be ordered separately



## Sound Modules

Sound modules have continuous and pulsing tones selectable via DIP switch. Maximum sound output is 80 dB(A) at 1 meter (3.3 feet).



Sound Module

854J - B 10 SA3  
                   a      b      c

a	
Housing Color	
Code	Description
B	Black

b	
Light Module Type	
Code	Description
24	24V AC/DC
10	120V AC
20	240V AC

c	
Module Type	
Code	Description
SA3	Single-circuit piezo-style steady/pulsing DIP switch selectable

Voltage	Housing Color	Module Type	Cat. No.
24V AC/DC	Black	Single-circuit sounder, single tone	854J-B24SA3
120V AC			854J-B10SA3
240V AC			854J-B20SA3

## Standard Stack Light Bases

**Surface-mount Base with External Holes**



**Vertical-mount Base**



**Pole-mount Base**



**Double-sided Base**



**Threaded Tube Base**



**1/2 in. NPT Base**



**Quick-release Base**



**Flange Style with M12 Micro Connector (Male)**



854J -  $\frac{B}{a}$   $\frac{VM}{b}$   $\frac{C}{c}$

a	
Housing Color	
Code	Description
B	Black

b	
Base Type <sup>(1)</sup>	
Code	Description
NPT	1/2 in. NPT
VM	Vertical mount
SH	Surface mount, preinstalled mounting hardware
SF	Surface mount, external mounting holes
PM10	10 cm (3.9 in.) aluminum pole mount base
PM25	25 cm (9.8 in.) aluminum pole mount base
T10	10 cm (3.9 in.) threaded tube (M20)
T25	25 cm (9.8 in.) threaded tube (M20)
DS	Double-sided base <sup>(2)</sup>
Q10	10 cm (3.9 in.) quick release base
Q25	25 cm (9.8 in.) quick release base
SFQD5	Flange-style base with M12 (5-pin DC) micro connector <sup>(3)(4)(5)(6)(7)</sup>

c	
Cap Option	
Code	Description
C	Cap included

- (1) PM10, PM25, T10, T25, Q10, and Q25 bases have powder-coated aluminum tubes
- (2) Double-sided base can accommodate up to ten modules per base that are divided in two groups up to five levels each.
- (3) For vertical mounting of the base use Cat. No. 855T-AVM.
- (4) Maximum number of levels that are allowed in the stack is four.
- (5) For use with Bulletin 889D cordsets.
- (6) Cannot be used with 10 cm plastic base extension (Cat. No. 854J-ABBE).
- (7) Maximum 250V AC/DC UL / 60V AC/DC IEC.

Housing Color	Base Type	Cat. No. <sup>(1)</sup>
Black	1/2 in. NPT thread	854J-BNPTC
	Vertical mount	854J-BVMC
	Surface mount – pre-installed hardware	854J-BSHC
	Surface mount – external mounting holes	854J-BSFC
	10 cm (3.9 in.) aluminum pole mount	854J-BPM10C
	25 cm (9.8 in.) aluminum pole mount	854J-BPM25C
	10 cm (3.9 in.) threaded tube (M20)	854J-BT10C
	25 cm (9.8 in.) threaded tube (M20)	854J-BT25C
	Double-sided base	854J-BDSC
	10 cm (3.9 in.) quick release base	854J-BQ10C
	25 cm (9.8 in.) quick release base	854J-BQ25C
	Flange-style base with M12 (5-pin DC) micro connector	854J-BSFQD5C

(1) All listed bases include a cap.

### Pre-configured Tower Lights, 1...5 Modules

Surface-mount



1/2 in. NPT Thread



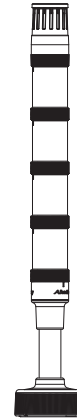
Vertical-mount



10 cm Pole-mount



10 cm Quick-release



25 cm Pole-mount



854JC - SF B 10 Y 3 L 5 B 3 L 7 Y 6  
 a b c d c d c d c d c d c d  
 (Level 1, c+d) (Level 2, c+d) (Level 3, c+d) (Level 4, c+d) (Level 5, c+d)

a	
Base Type <sup>(1)</sup>	
Code	Description
NPT	1/2 in. NPT
VM	Vertical mount
SF	Surface mount –external mounting holes
P10	10 cm (3.9 in.) aluminum pole mount with foot
P25	25 cm (9.8 in.) aluminum pole mount with foot
Q10	10 cm (3.9 in.) quick release mount pole
Q25	25 cm (9.8 in.) quick release mount pole

b	
Voltage	
Code	Description
24	24V AC/DC
10	120V AC





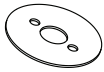


c	
Module Type	
Code	Description
Y	Steady LED
L	Flashing LED
B	Strobe LED—single flash
P	Piezo sound alarm, continuous/pulsing tone

d	
Lens Color/Sound	
Code	Description
1	Sound module <sup>(2)</sup>
3	Green
4	Red
5	Amber
6	Blue
7	Clear
8	Yellow







(1) P10, P25, Q10, Q25 bases have powder-coated aluminum tubes.

(2) Sound module option can only be selected with Module Type option P (Table c). They must be in the top position of the stack.

## Accessories

Description		Cat. No.	
	Incandescent Lamps (4 W)	24V AC/DC	854J-L24
		120V AC	854J-L10
		240V AC	854J-L20
	Incandescent lamp removal tool	800T-N82	
	10 cm plastic base extension, black	854J-ABBE	
	Plastic vertical bracket for pole foot, black (can be used with Bulletin 855T, 855E, 854K, and 855F pole bases)	854J-ABPB	
	O-rings for lenses	854J-ALSG	
	O-rings for bases	854J-ABSG	
	Gasket for SH surface mount bases	854J-ASG2	
	Upper base with terminal block, black	854J-ABUB	
	Cap, black	854J-ABCAP	
	Conduit mount adapter for threaded tube base (1/2 in. NPT to M20x1.5)	854J-ACMK	
	L-bracket for threaded tube base (vertical mount kit)	854J-ABVM	
	Direct mount kit for threaded tube base	854J-ARDM	

**Table 76 - Replacement Parts**

Description		Cat. No.
	Vertical Mount Gasket Replacement flat gasket is to be placed between the mounting surface and the vertical mount base (Cat. No. 854J-BVMC).	855T-AVFG
	Pole Foot Gasket Replacement flat gasket is to be placed between the mounting surface and the pole base bottom foot. (Must order multiples of 5.) For use with Cat. No. 855T-BPM10C and 855T-BPM25C pole bases, Cat. No. 854J-BSFC and 854J-BSFD5C bases, and Bul. 855T, 855E, 855F, 855D, 854J, and 854K quick release bases.	855T-APFG
	Mounting Screw Washer Kit Replacement flat washers are used to provide a seal where the mounting screw meets the pole base. (1 kit includes 20 pieces)	855T-AMSG
	Locking ring for Bulletin 854J, 855D, and 855E quick release bases	855D-ABQLR
	Internal gasket for quick release base An order quantity of 1 will receive a bag of five gaskets)	855D-AQG
	Quick-release mounting base with gasket	855D-AQMB

## Specifications

**IMPORTANT** Based on the weight and style of mounting, tower lights are subject to damage from shock and vibration. [Table 77](#) provides reference guidelines are reference guidelines for maximum acceptable conditions.

**Table 77 - Mechanical**

Standard Bases		Shock [G]	Vibration [G]
Surface-mount base or 10 cm (3.9 in.) aluminum pole base	1 module stack	50	5
	3 module stack	50	5
	5 module stack	40	5
Vertical base or 25 cm (9.8 in.) aluminum pole base	1 module stack	55	5
	3 module stack	55	5
	5 module stack	35	5
Recommended wire size		0.2...1.5 mm <sup>2</sup> (24...16 AWG)	
Recommended terminal torque		Screwless terminal blocks	

**Table 78 - Environmental**

Attribute		Value
Ingress ratings	Light modules	UL Type 4/4X/13, IP66
	Sound modules	
	Surface, vertical, tube mount bases	
	Pole-mount bases	
	Flange-style base with M12 micro connector <sup>(1)</sup>	
Temperature ranges	Operating	-30...+60 °C (-22...+140 °F) For Cat. No. 854J-BSFQD5C only: -30...+45 °C (-22...+113 °F)
	Storage	-30...+85 °C (-22...+185 °F)

(1) UL Type 1 when used with Cat. No. 855T-AVM mounting bracket.

**Table 79 - Materials**

Part	Material
Bases, caps, lens covers, sound module housings	Polycarbonate
Lamp socket	Polycarbonate
Rubber seals and gaskets	Nitrile rubber
Pole (for aluminum pole assembly)	Aluminum
Pole base footing (for aluminum pole base)	Polycarbonate
Mounting screw washers	Polypropylene

**Table 80 - Estimated Light Output**

Device		Estimated Light Output [mcd]	
		24V AC/DC	120V AC, 240V AC
Strobe LED	Red	4430	3915
	Green	4216	4080
	Amber	4430	3915
	Blue	1673	1619
	White	4464	4320
	Yellow	3715	3283
Steady/flashing LED	Red	1793	2392
	Green	1714	3400
	Amber	1793	2391
	Blue	680	1349
	White	1814	3600
	Yellow	1503	2006

Table 81 - Operating Voltage

Device	Operating Voltage		
	24V AC/DC	120V AC	240V AC
Light modules and sound modules	24V AC/DC ( $\pm 10\%$ )	110V AC, 50 Hz ( $\pm 10\%$ ) 120V AC, 60 Hz ( $\pm 10\%$ )	230V AC, 50 Hz ( $\pm 10\%$ ) 240V AC, 60 Hz ( $\pm 10\%$ )

Table 82 - Lamp Life Ratings (Design Life) Average Life Under Static, No Vibration, Conditions

Device	Lamp Life Rating		
	24V AC/DC	120V AC	240V AC
LED modules		50,000 hr	
Sound modules		20,000 hr	

Table 83 - Current Consumption [mA]

Device	Current Consumption [mA]		
	24V AC/DC	120V AC	240V AC
Light only modules	Steady LED	22 (red, amber, and yellow) 33 (green, blue, and white)	30 (red, amber, and yellow) 29 (green, blue, and white)
	Flashing LED	28 (red, amber, and yellow) 36 (green, blue, and white)	30 (red, amber, and yellow) 29 (green, blue, and white)
	Strobe LED	35 (red, amber, and yellow) 65 (green, blue, and white)	10
Sound modules	Single-tone	65	31

Table 84 - Flashing Frequency (Light Only Modules)

Device	Flashing Frequency
Flashing LED Modules	Approximately 1.5 Hz; Time On/Time OFF = 1:1
LED Strobe Modules	Approximately 2 Hz (flash duration 1/50,000 second)

Table 85 - Decibel Rating (Sound Modules) <sup>(1)</sup>

Device	Decibel Rating
Single-tone sound module	80 dB(A) (non-adjustable)
Tone frequency	Preset at 2500 Hz

(1) All dB(A) ratings are determined at a distance of 1 m (3.3 ft) from the sound module.

Table 86 - Leakage Current Impact

All light and sound modules can absorb up to 3 mA of leakage current from solid-state outputs without module activation.

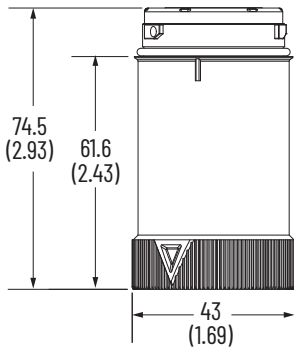
Table 87 - Standards and Certifications

Standards Compliance	Certifications
<ul style="list-style-type: none"> <li>UL 508</li> <li>CSA C22.2 No. 14</li> <li>EN/IEC 60947-1</li> <li>EN/IEC 60947-5-1</li> </ul>	<ul style="list-style-type: none"> <li>cULus Listed (File No. E14840, Guides NKCR, NKCR7)</li> <li>CE Marked</li> <li>RoHS Compliant</li> </ul>

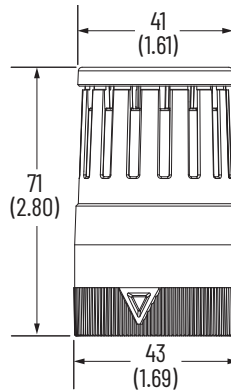
## Approximate Dimensions

Dimensions in millimeters (inches). Dimensions are not intended to be used for manufacturing purposes.

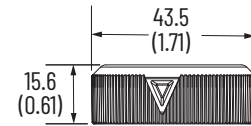
**Light Module**



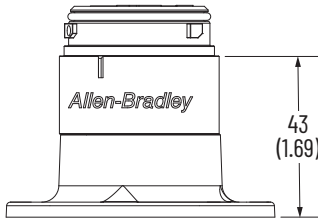
**Sound Module**



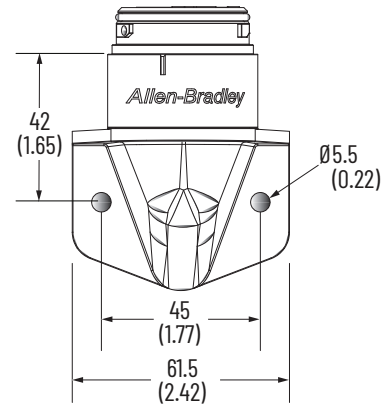
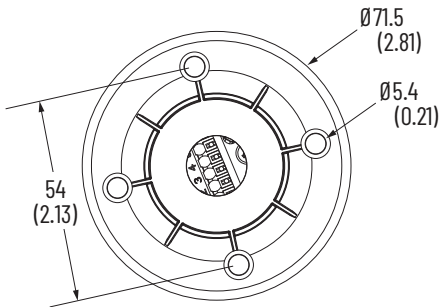
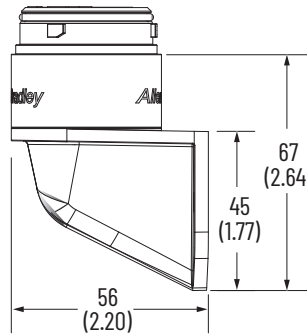
**Cap**



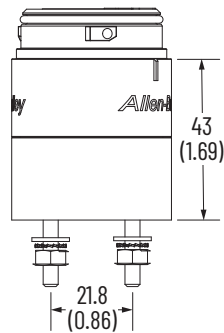
**Surface-mount Base**



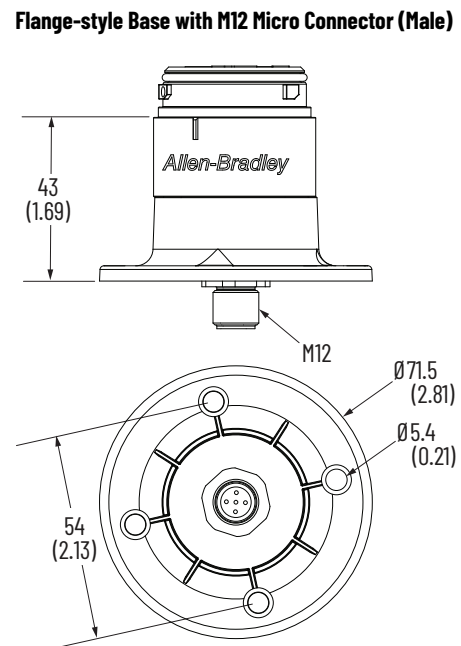
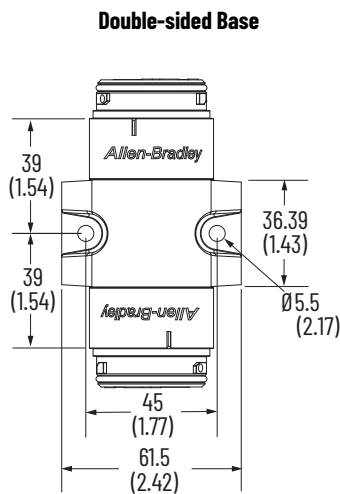
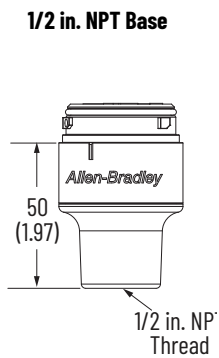
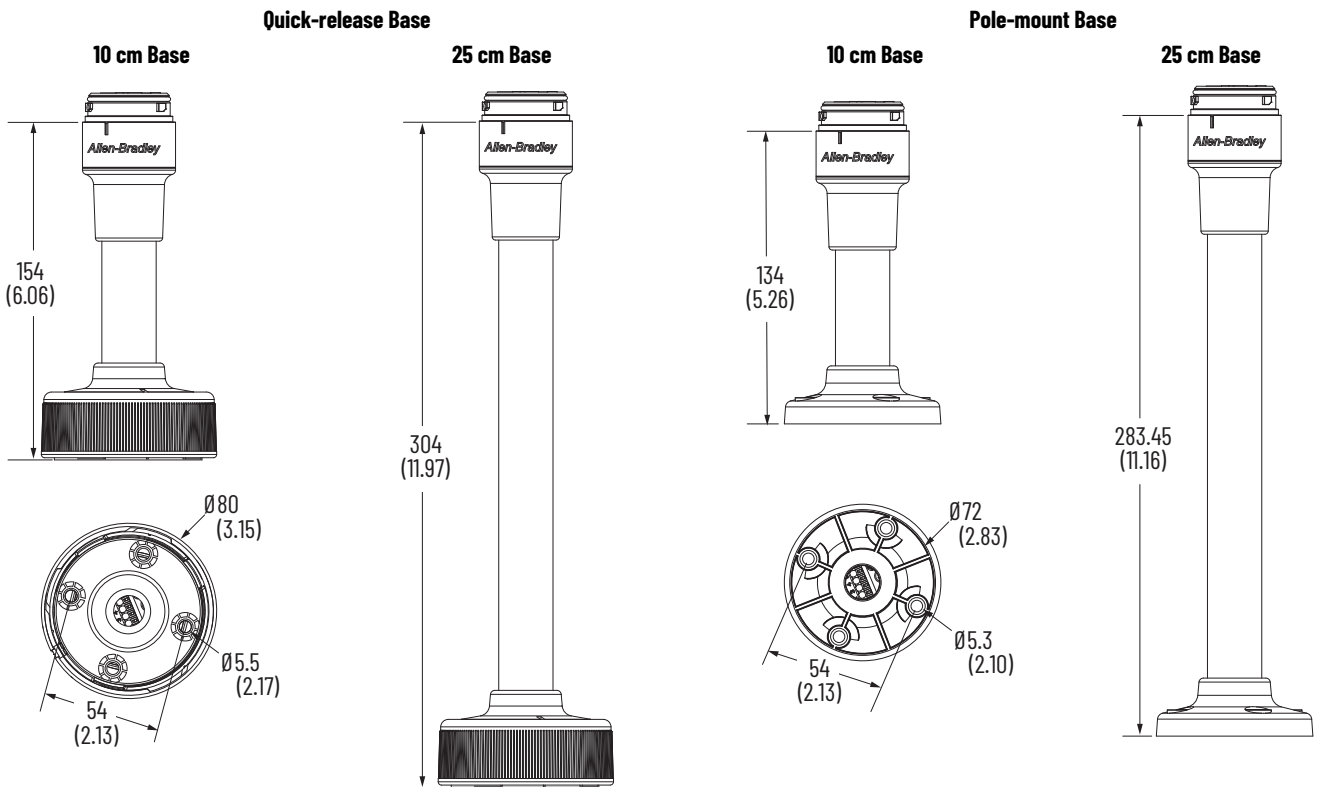
**Vertical-mount Base**



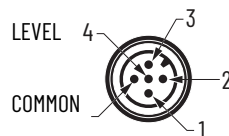
**Pre-installed Hardware**



Dimensions in millimeters (inches). Dimensions are not intended to be used for manufacturing purposes.



**5-pin DC Micro Configuration**





# 60 mm Control Tower Stack Lights

These devices are designed to communicate application status, alerting you to critical equipment and system needs on the plant floor. They feature an IP66 enclosure rating and is rated for indoor and outdoor use, which makes them an ideal signaling solution for a broad range of applications. With a wide variety of mounting bases available, they can be installed in any orientation – vertical, sideways, or upside-down – to best suit the application. They can be pre-assembled to save time or ordered as separate light and sound modules for customized field assembly.



## Light Modules

854K - 10 TL 4  
a b c

a	
Voltage	
Code	Description
00	0...250V AC/DC (no lamp module) <sup>(1)</sup>
24	24V AC/DC <sup>(2)</sup>
10	120V AC <sup>(2)</sup>
20	240V AC <sup>(2)</sup>

b	
Light Module Type	
Code	Description
XN	Steady no lamp <sup>(3)</sup>
TL	Steady socket-mount LED
GL	Flashing socket-mount LED
BL	LED strobe, single flash

c	
Lens Color	
Code	Description
3	Green
4	Red
5	Amber
6	Blue
7	Clear
8	Yellow

- (1) Can only be selected with module type XN, voltage code 00. Accepts socket mount incandescent lamp types only.
- (2) Not valid with module type XN (Table b).
- (3) Incandescent lamps (catalog numbers 854J-L24, 854J-L10, and 854J-L20) must be purchased separately.

Voltage	Color	Steady Incandescent	Steady LED	Flashing LED	Strobe LED
		Cat. No. <sup>(1)</sup>	Cat. No.	Cat. No.	Cat. No.
0...250V AC/DC	Green	854K-00XN3	—	—	—
	Red	854K-00XN4	—	—	—
24V AC/DC	Green	—	854K-24TL3	854K-24GL3	854K-24BL3
	Red	—	854K-24TL4	854K-24GL4	854K-24BL4
	Amber	—	854K-24TL5	854K-24GL5	854K-24BL5
120V AC	Green	—	854K-10TL3	854K-10GL3	854K-10BL3
	Red	—	854K-10TL4	854K-10GL4	854K-10BL4
	Amber	—	854K-10TL5	854K-10GL5	854K-10BL5
240V AC	Green	—	854K-20TL3	854K-20GL3	854K-20BL3
	Red	—	854K-20TL4	854K-20GL4	854K-20BL4
	Amber	—	854K-20TL5	854K-20GL5	854K-20BL5

(1) No lamp included; must be ordered separately

## Sound Modules

Sound modules have continuous and pulsing tones selectable via DIP switch. Maximum sound output is 90 dB(A) at 1 m (3.28 ft) and the volume is adjustable.



Sound Module

854K -   B    10  SA3  
                   a      b      c

a	
Housing Color	
Code	Description
B	Black

b	
Voltage	
Code	Description
24	24V AC/DC
10	120V AC
20	240V AC

c	
Module Type	
Code	Description
SA3	Single-circuit/single-tone piezo-style steady/pulsing DIP switch selectable

Voltage	Housing Color	Module Type	Cat. No.
24V AC/DC	Black	Single-circuit sounder, single tone	854K-B24SA3
120V AC			854K-B10SA3
240V AC			854K-B20SA3

## Standard Stack Light Bases

**Surface-mount Base with External Holes**



**Vertical-mount Base**



**Pole-mount Base**



**Double-sided Base**



**Threaded Tube Base**



**1/2 in. NPT Base**



**Quick-release Base**



**Flange Style with M12 Micro Connector (Male)**



**854K** - **B** **VM** **C**  
a b c

a	
Housing Color	
Code	Description
B	Black

b	
Base Type <sup>(1)</sup>	
Code	Description
NPT	1/2 in. NPT threading
VM	Vertical mount
SH	Surface mount, pre-installed mounting hardware
SF	Surface mount, external mounting holes
PM10	10 cm (3.9 in.) aluminum pole-mount base
PM25	25 cm (9.8 in.) aluminum pole-mount base
T10	10 cm (3.9 in.) threaded tube (M20)
T25	25 cm (9.8 in.) threaded tube (M20)
DS	Double-sided base <sup>(2)</sup>
Q10	10 cm (3.9 in.) quick-release base
Q25	25 cm (9.8 in.) quick-release base
SFQD5	Flange-style base with M12 (5-pin DC) micro connector <sup>(3) (4) (5) (6) (7)</sup>

c	
Cap Option	
Code	Description
C	Cap included

- (1) PM10, PM25, T10, T25, Q10, and Q25 bases have powder-coated aluminum tubes.
- (2) Double-sided base can accommodate up to ten modules per base that are divided in two groups up to five levels each.
- (3) For vertical mounting of the base use catalog number 854K-AVM.
- (4) Maximum number of levels that are allowed in the stack is four.
- (5) For use with Bulletin 889D cordsets.
- (6) Cannot be used with 10 cm plastic base extension (catalog number 854K-ABBE).
- (7) Maximum 250V AC/DC UL / 60V AC/DC IEC.

Housing Color	Base Type	Cat. No. <sup>(1)</sup>
Black	1/2 in. NPT thread	854K-BNPTC
	Vertical mount	854K-BVMC
	Surface mount – pre-installed hardware	854K-BSHC
	Surface mount – external mounting holes	854K-BSFC
	10 cm (3.9 in.) aluminum pole mount	854K-BPM10C
	25 cm (9.8 in.) aluminum pole mount	854K-BPM25C
	10 cm (3.9 in.) threaded tube (M20)	854K-BT10C
	25 cm (9.8 in.) threaded tube (M20)	854K-BT25C
	Double-sided base	854K-BDSC
	10 cm (3.9 in.) quick release base	854K-BQ10C
	25 cm (9.8 in.) quick release base	854K-BQ25C
	Flange-style base with M12 (5-pin DC) micro connector	854K-BSFQD5C

(1) All listed bases include a cap.

# Pre-configured Tower Lights, 1...5 Modules

Surface-mount

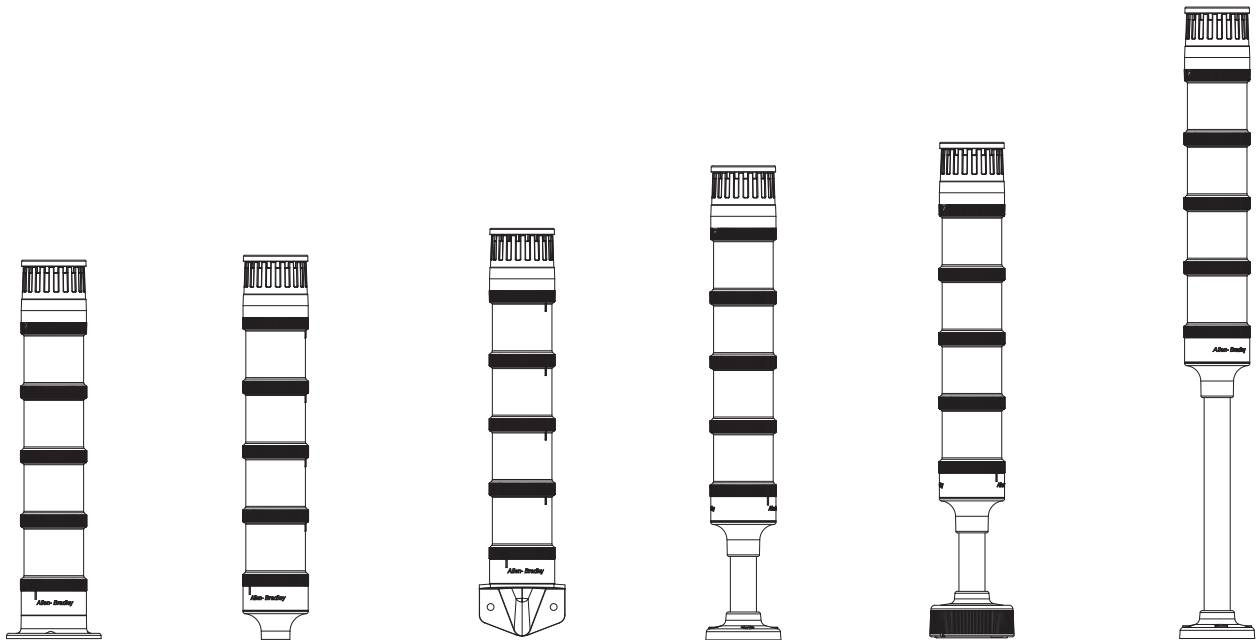
1/2 in. NPT Thread

Vertical Mount

10 cm Pole-mount

10 cm Quick-release

25 cm Pole-mount



854KC - SF B 10 Y 3 L 5 B 3 L 7 Y 6  
 a b c d c d c d c d c d  
 (Level 1, c+d) (Level 2, c+d) (Level 3, c+d) (Level 4, c+d) (Level 5, c+d)

a	
Base Type <sup>(1)</sup>	
Code	Description
NPT	1/2 in. NPT
VM	Vertical mount
SF	Surface mount – external mounting holes
P10	10 cm aluminum pole mount
P25	25 cm aluminum pole mount
Q10	10 cm quick release base
Q25	25 cm quick release base

b	
Voltage	
Code	Description
24	24V AC/DC
10	120V AC

c	
Module Type	
Code	Description
Y	Steady LED
L	Flashing LED
B	Strobe
P	Single-circuit piezo sound module

d	
Lens Color/Sound	
Code	Description
1	Sound module <sup>(2)</sup>
3	Green
4	Red
5	Amber
6	Blue
7	Clear
8	Yellow

(1) P10, P25, Q10, and Q25 bases have powder-coated aluminum tubes.  
 (2) Sound module option can only be selected with Module Type option P (Table c). They must be in the top position of the stack.

## Accessories

Table 88 - Accessories
















Description		Cat. No.
	Incandescent Lamps (4 W)	24V AC/DC
		120V AC
		240V AC
	Incandescent lamp removal tool	800T-N82
	10 cm plastic base extension, black	854K-ABBE
	O-rings for lenses	854K-ALSG
	Gasket for SH surface mount bases	854K-ASG2
	Upper base with terminal block, black	854K-ABUB
	Cap, black	854K-ABCAP
	Gasket for vertical mount bases	854K-AVFG
	Gasket for surface mount base with external mounting holes	854K-ASG4
	Vertical mounting bracket for flange-style base (Cat. No. 854K-BSFQD5C) or surface mount base (Cat. No. 854K-BSFC)	854K-AVM

Table 89 - Replacement Parts

Description		Cat. No.
	Mounting Screw Washer Kit Replacement flat washers are used to provide a seal where the mounting screw meets the pole base. (1 kit includes 20 pieces)	855T-AMSG
	Pole Foot Gasket Replacement flat gasket is to be placed between the mounting surface and the pole base bottom foot. (Must order multiples of 5.) For use with Cat. No. 855T-BPM10C and 855T-BPM25C pole bases, Cat. No. 854J-BSFC and 854J-BSFQD5C bases, and Bul. 855T, 855E, 855F, 855D, 854J, and 854K quick release bases.	855T-APFG
	Locking ring for Bulletin 854J, 855D, and 855E quick release bases	855D-ABQLR
	Internal gasket for quick release base (order quantity of one and receive bag of five gaskets)	855D-AQG
	Quick-release mounting base with gasket	855D-AQMB
	Conduit mount adapter for threaded tube base (1/2 in. NPT to M20x1.5)	854J-ACMK
	L-bracket for threaded tube base (vertical mount kit)	854J-ABVM
	Direct mount kit for threaded tube base	854J-ARDM
	Plastic vertical bracket for pole foot, black (can be used with Bul. 855T, 855E, 854K, and 855F pole bases)	854J-ABPB

## Specifications

**IMPORTANT** Based on the weight and style of mounting, tower lights are subject to damage from shock and vibration. [Table 90](#) provides reference guidelines are reference guidelines for maximum acceptable conditions.

**Table 90 - Mechanical**

Standard Bases		Shock [G]	Vibration [G]
Surface-mount base with external holes or 10 cm (3.9 in.) aluminum pole base	1 module stack	50	5
	3 module stack	50	5
	5 module stack	40	5
Vertical base or 25 cm (9.8 in.) aluminum pole base	1 module stack	55	5
	3 module stack	55	5
	5 module stack	35	5
Recommended wire size		0.2...1.5 mm <sup>2</sup> (24...16 AWG)	
Recommended terminal torque		Screwless terminal blocks	

**Table 91 - Environmental**

Attribute		Value
Ingress ratings	Light modules with cap	UL Type 4/4X/13, IP66
	Sound modules	UL Type 4/4X/13, IP66
	Surface, vertical, tube mount bases	UL Type 4/4X/13, IP66
	Pole-mount bases	UL Type 4/4X/13, IP66
	Flange-style base with M12 micro connector <sup>(1)</sup>	UL Type 4/4X/13, IP66
Temperature ranges	Operating	-30...+60 °C (-22...+140 °F) For Cat. No. 854J-BSFQD5C only: -30...+45 °C (-22...+113 °F)
	Storage	-30...+85 °C (-22...+185 °F)

(1) UL Type 1 when used with Cat. No. 855K-AVM mounting bracket.

**Table 92 - Materials**

Part	Material
Bases, caps, lens covers, sound module housings, lenses	Polycarbonate
Lamp socket	Polycarbonate
Rubber seals and gaskets	Nitrile rubber
Pole (for aluminum pole assembly)	Aluminum
Pole base footing (for aluminum pole base)	Polycarbonate
Mounting screw washers	Polypropylene

**Table 93 - Light Output**

Device		Light Output [mcd]	
		24V AC/DC	120V AC, 240V AC
Strobe LED	Red	4430	3915
	Green	4216	4080
	Amber	4430	3915
	Blue	1673	1619
	White	4464	4320
	Yellow	3715	3283
Steady/flashing LED	Red	1793	2392
	Green	1714	3400
	Amber	1793	2392
	Blue	680	1349
	White	1814	3600
	Yellow	1503	2006

Table 94 - Operating Voltage

Device	Operating Voltage		
	24V AC/DC	120V AC	240V AC
Light modules and sound modules	24V AC/DC (±10%)	110V AC, 50 Hz (±10%) 120V AC, 60 Hz (±10%)	230V AC, 50 Hz (±10%) 240V AC, 60 Hz (±10%)

Table 95 - Lamp Life Ratings (Design Life) Average Life Under Static, No Vibration, Conditions

Device	Lamp Life Rating		
	24V AC/DC	120V AC	240V AC
LED modules		50,000 hr	
Sound modules		20,000 hr	

Table 96 - Current Consumption

Device	Current Consumption [mA]			
	24V AC/DC	120V AC	240V AC	
Light only modules	Steady LED	22 (red, amber, and yellow) 33 (green, blue, and white)	30 (red, amber, and yellow) 29 (green, blue, and white)	
	Flashing LED	28 (red, amber, and yellow) 36 (green, blue, and white)	30 (red, amber, and yellow) 29 (green, blue, and white)	
	Strobe LED	35 (red, amber, and yellow) 65 (green, blue, and white)	10	
Sound modules	Single-tone	65	31	32

Table 97 - Flashing Frequency (Light Only Modules)

Device	Flashing Frequency
Flashing LED modules	Approximately 1.5 Hz; Time On/Time OFF = 1:1
LED strobe modules	Approximately 2 Hz (flash duration 1/50,000 second)

Table 98 - Tone Frequency

Attribute	Value
Tone frequency	Preset at 2500 Hz

Table 99 - Decibel Rating (Sound Modules) <sup>(1)</sup>

Device	Decibel Rating
Single-tone sound module (SA3)	Maximum volume output is 80 dB(A) (non-adjustable)

(1) All dB(A) ratings are determined at a distance of 1 m (3.3 ft) from the sound module.

Table 100 - Leakage Current Impact

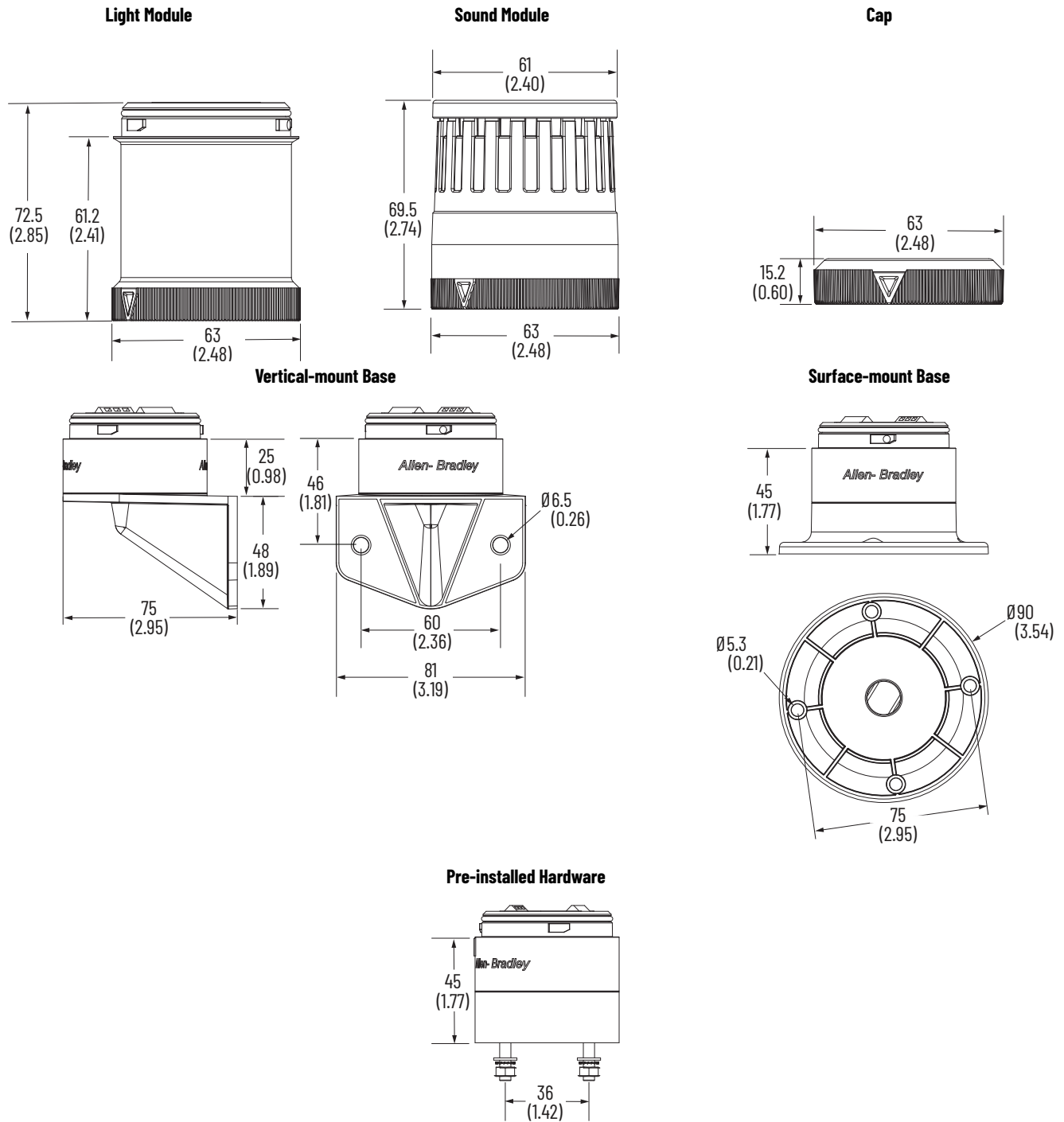
All light and sound modules can absorb up to 3 mA of leakage current from solid-state outputs without module activation.

Table 101 - Standards and Certifications

Standards Compliance	Certifications
<ul style="list-style-type: none"> <li>UL 508</li> <li>CSA C22.2 No. 14</li> <li>EN/IEC 60947-1</li> <li>EN/IEC 60947-5-1</li> </ul>	<ul style="list-style-type: none"> <li>c-UL-us Listed (File No. E14840, Guides NKCR, NKCR7)</li> <li>CE Marked</li> <li>RoHS Compliant</li> </ul>

## Approximate Dimensions

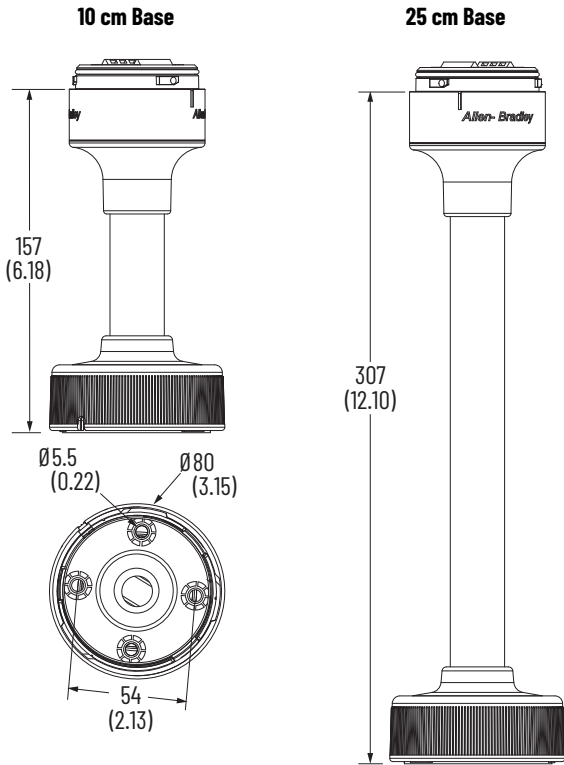
Dimensions in millimeters (inches). Dimensions are not intended to be used for manufacturing purposes.



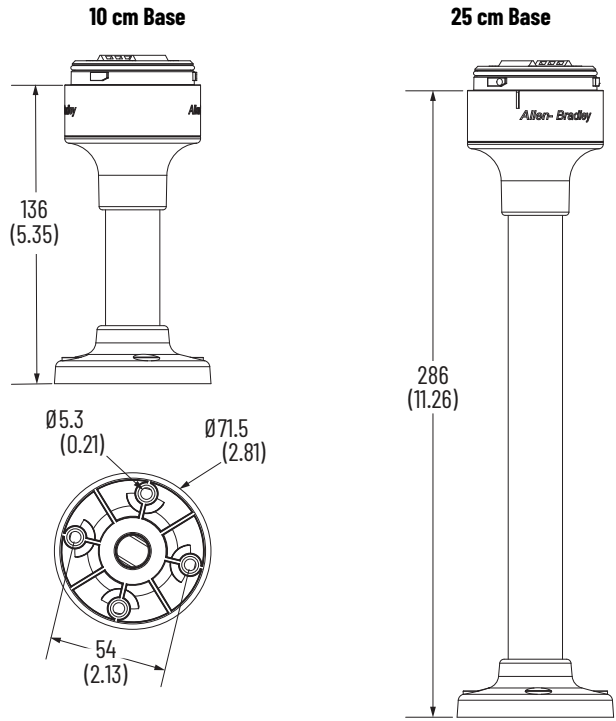


Dimensions in millimeters (inches). Dimensions are not intended to be used for manufacturing purposes.

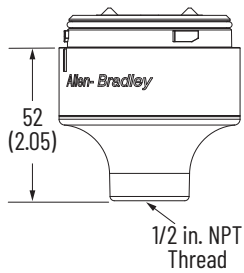
**Quick-release Base**



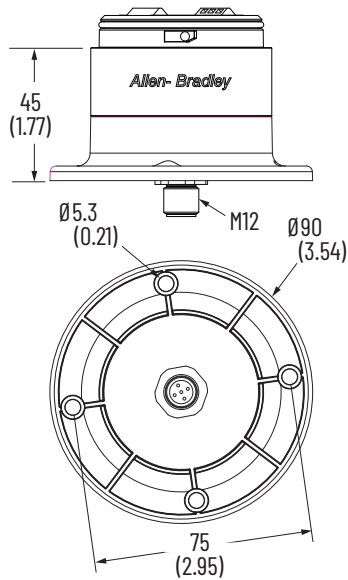
**Pole-mount Base**



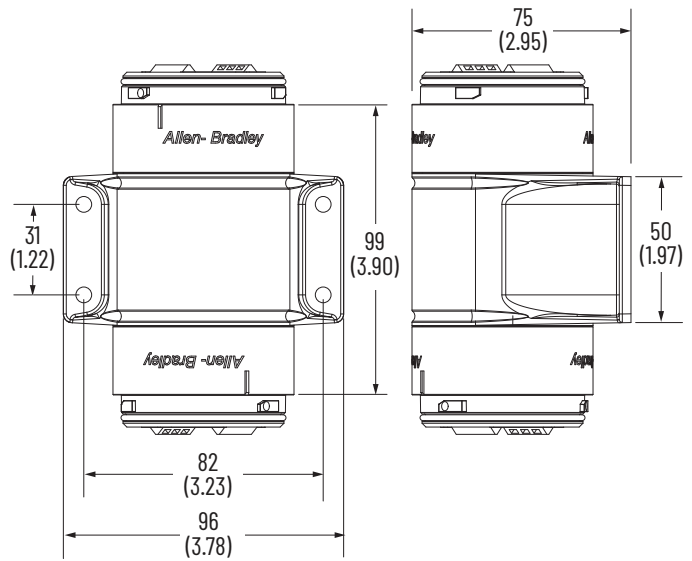
**1/2 in. NPT Thread Base**



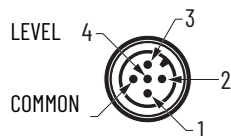
**Flange-style Base with M12 Micro Connector (Male)**



**Double-sided Base**



**5 pin DC Micro Configuration**



# Bulletin 855E/855T Control Tower™ Stack Lights

This product line includes 50 mm (855E) and 70 mm (855T) stack lights.

## 50 mm Control Tower Stack Lights

These devices are designed to communicate application status, alerting you to critical equipment and system needs on the plant floor. They can be pre-assembled to save time or ordered as separate light and sound modules for customized field assembly.



Flashing Incandescent

## Light Modules

855E -  $\frac{10}{a}$   $\frac{FN}{b}$   $\frac{4}{c}$

a	
Voltage	
Code	Description
00	0...250V AC/DC (no lamp module) <sup>(1)</sup>
12	12V AC/DC
24	24V AC/DC
10	120V AC
20	240V AC

b	
Light Module Type	
Code	Description
XN	Steady no lamp <sup>(1)</sup>
DN	Steady incandescent
FN	Flashing incandescent
TL	Steady socket-mount LED
GL	Flashing socket-mount LED
BL	Strobe

c	
Lens Color	
Code	Description
3	Green
4	Red
5	Amber
6	Blue
7	Clear
8	Yellow
9	Magenta <sup>(2)</sup>

(1) Can only be selected with module type XN, voltage code 00. Accepts socket mount incandescent lamp types only.

(2) Magenta color can only be selected with module type TL voltage code 24 or 10 or module type XN for voltage code 00.

## Sound Modules

Sound modules have continuous and pulsing tones. Maximum sound output is 103 dB at 1 m (3.3 ft). A reduced volume setting is available by changing the position of the volume DIP switch, which produces a sound output of 88 dB(A) at 1 m (3.3 ft). Maximum sound output is 80 dB(A) at 1 m (3.3 ft).



Black Two-tone Sound Module

855E -  $\frac{B}{a}$   $\frac{10}{b}$   $\frac{TA3}{c}$

a	
Housing Color	
Code	Description
B	Black
G	Gray

b	
Voltage	
Code	Description
12	12V AC/DC
24	24V AC/DC
10	120V AC
20	240V AC

c	
Module Type	
Code	Description
SA3	Single circuit/single tone piezo style steady/pulsing DIP switch selectable
TA3	Two circuit/two-tone piezo style steady/pulsing DIP switch selectable

# Standard Stack Light Bases

Surface-mount Base with Cap



Vertical-mount Base with Cap



Pole-mount Bases



Quick-release Base



855E - B VM C  
           a       b       c

a	
Housing Color	
Code	Description
B	Black
G	Gray



b	
Base Type	
Code	Description
CB	Surface mount with 1/2 in. NPT threading
RB	Surface mount with M20 metric threading
SB	Surface mount with PG16 threading
TM	25 mm (0.98 in.) tube mount
VM	Vertical mount
PM10	10 cm (3.9 in.) aluminum pole-mount base
PM25	25 cm (9.8 in.) aluminum pole-mount base
PM40	40 cm (15.7 in.) aluminum pole-mount base
PM60	60 cm (23.6 in.) aluminum pole-mount base
PM80	80 cm (31.5 in.) aluminum pole-mount base
MM10	10 cm (3.9 in.) quick-release base
MM25	25 cm (9.8 in.) quick-release base
MM40	40 cm (15.7 in.) quick-release base

c	
Cap Option <sup>(1)</sup>	
Code	Description
Blank	No cap
C	Cap included


(1) Quick-release bases always include a cap.



## Accessories – Bulletin 855E/855T







Description		Voltage	Cat. No.
 <p>(BA15d Bayonet) 19 mm Socket Height</p>	Incandescent Lamps	12V AC/DC	855T-L12
		24V AC/DC	855T-L24
		120V AC	855T-L10
		240V AC	855T-L20
Description		Color	Cat. No.
 <p>LED Lamps for Socket-mounted Modules For Industrial Use Only</p>	12V AC/DC	Red	855E-LL12R
		Green	855E-LL12G
		Amber	855E-LL12A
		Blue	855E-LL12B
		Yellow	855E-LL12Y
		White <sup>(1)</sup>	855E-LL12W
	24V AC/DC	Red	855E-LL24R
		Green	855E-LL24G
		Amber	855E-LL24A
		Blue	855E-LL24B
		Yellow	855E-LL24Y
		White <sup>(1)</sup>	855E-LL24W
	120V AC	Red	855E-LL10R
		Green	855E-LL10G
		Amber	855E-LL10A
		Blue	855E-LL10B
		Yellow	855E-LL10Y
		White <sup>(1)</sup>	855E-LL10W
	240V AC	Red	855E-LL20R
		Green	855E-LL20G
		Amber	855E-LL20A
		Blue	855E-LL20B
		Yellow	855E-LL20Y
		White <sup>(1)</sup>	855E-LL20W

(1) White LED lamps are to be used with a clear or magenta lens option.

Description		Color	Cat. No.
 <p>Caps (top of stack) The cap is installed to the top of the uppermost light module. No cap is needed if the top module is a sound module or a light/with sound module.</p>	Black	855E-ABCAP <sup>(1)</sup>	
	Gray	855E-AGCAP <sup>(1)</sup>	
	Black	855T-ABCAP <sup>(2)</sup>	
	Gray	855T-AGCAP <sup>(2)</sup>	
–	Module Securing Screws (Bag of 5)		855E-ASC <sup>(1)</sup>

(1) For use with Bulletin 855E Control Tower™ stack lights only.  
 (2) For use with Bulletin 855T Control Tower stack lights only.

Table 102 - Gaskets

	Description	Cat. No.
	Lens O-ring Seal Replacement rubber O-rings are to be installed between all bases, light, sound, and light/with sound modules. (Package quantity = 5)	855E-ALSG <sup>(1)</sup>
		855T-ALSG <sup>(2)</sup>
	Surface Mount Gasket Replacement flat gasket is to be placed between the mounting surface and the surface mount base. (Package quantity = 5)	855E-ASFG <sup>(3)</sup>
		855T-ASFG <sup>(4)</sup>
	Pole Foot Gasket Replacement flat gasket is to be placed between the mounting surface and the pole base bottom foot. (Must order multiples of 5.) For use with Cat. No. 855T-BPM10C and 855T-BPM25C pole bases, Cat. No. 854J-BSFC and 854J-BSFQD5C bases, and Bul. 855T, 855E, 855F, 855D, 854J, and 854K quick release bases.	855T-APFG
	Vertical Mount Gasket Replacement flat gasket is to be placed between the mounting surface and the vertical mount base (Cat. No. 854J-BVMC). (Package quantity = 5)	855T-AVFG
	Tube Mount Gasket Replacement O-ring gasket is to be placed in the tube mount pole opening before the tube is installed (BTM- and GTM-type bases). (Package quantity = 5)	855T-AVFG
	Mounting Screw Washer Kit Replacement flat washers are used to provide a seal where the mounting screw meets the pole base. (1 kit includes 20 pieces) (Package quantity = 20)	855T-AMSG






(1) For use with Bulletin 855E Control Tower stack lights only.

(2) For use with Bulletin 855T Control Tower stack lights only.

(3) For use with Bulletin 855E Control Tower stack lights (SB, RB, &amp; CB bases) only.



(4) For use with Bulletin 855T Control Tower stack lights (BSB and BCB bases) only.

Table 103 - Pole Connection Boxes<sup>(1)</sup>, Hole Plugs, and Cable Glands

	Description	Cat. No.
	Black surface mount with PG16 threaded side entrance	855T-BSMP
	Black surface mount with M20 threaded side entrance	855T-BSMR
	Black vertical mount with PG16 threaded side entrance	855T-BVMP
	Black vertical mount with M20 threaded side entrance	855T-BVMR
	Black magnetic mount with PG16 threaded side entrance	855T-BMMP
	Black magnetic mount with M20 threaded side entrance	855T-BMMR
	Black magnetic mount with 1/2 in. NPT threaded side entrance	855T-BMMN
	Black PG16 threaded hole plug	855T-ABUP
	Black M20 threaded hole plug	855T-ABUR
	Black PG16 threaded cable gland	855T-ABCP
	Black M20 threaded cable gland	855T-ABCR
	Black 1/2 in. NPT sealing connector	855T-ABHN
—	Mounting Screws (M5 x 40 screws) for mounting Pole Mount Base to Pole Connection Box	855T-AJBS

(1) For use with Bulletin 855E and 855T pole mount bases, except for stainless steel and quick release base types.

Table 104 - Mounting Kits

	Description	Cat. No.
	Vertical Mount Kit Kit includes vertical bracket and set of three sealing washers. For use with 855E surface mount base.	855E-AVM
	Vertical Mount Kit Kit includes vertical bracket and set of three sealing washers. For use with 856T and 855E pole mount bases, 856T surface mount bases, and 856T M12 QD bases.	855T-AVM

## Specifications

**IMPORTANT** Based on the weight and style and mounting, tower lights are subject to damage from shock vibration. The following specifications are reference guidelines for maximum acceptable conditions.

**Table 105 - Mechanical**

Standard Bases		Shock [G]	Vibration [G]
Surface-mount base or 10 cm aluminum pole base	1 module stack	150	5
	3 module stack	45	1.5
	5 module stack	35	0.75
Vertical base or 25 cm aluminum pole base	1 module stack	95	3.5
	3 module stack	30	1.25
	5 module stack	20	0.5
Recommended wire size		0.5...1.5 mm <sup>2</sup> (22...16 AWG)	
Recommended terminal torque		0.87 N•m (7 lb•in)	

**Table 106 - Environmental**

Attribute		Value
Ingress Ratings	Light modules with cap	UL Type 4/4X/13, IP66
	Sound modules	UL Type 4/4X/13, IP66
	Surface, vertical, tube mount bases	UL Type 4/4X/13, IP66
	Pole-mount bases	UL Type 4/4X/13, IP66
	Flange-style base with M12 micro connector <sup>(1)</sup>	UL Type 4/4X/13, IP66
Temperature ranges	Operating	-25...+50 °C (-13...+122 °F)
	Storage	-40...+85 °C (-40...+185 °F)

(1) UL Type 1 when used with Cat. No. 855T-AVM mounting bracket.

**Table 107 - Materials**

Part	Material
Bases, caps, lens covers, sound module housings, lenses	Polycarbonate
Lamp socket	Polycarbonate
Rubber seals and gaskets	Nitrile rubber
Pole (for aluminum pole assembly)	Aluminum
Pole base footing (for aluminum pole base)	Polycarbonate
Insulation sleeve (for pole insulation)	Polyolefin
Mounting screw washers	Polypropylene

**Table 108 - Light Output**

Device	Light Output			
	12V AC/DC	24V AC/DC	120V AC	240V AC
Steady incandescent	0.5 MSCP	2.5 MSCP	3.0 MSCP	0.49 MSCP
Flashing incandescent	6.3 lumens	31.4 lumens	37.7 lumens	6.2 lumens
Strobe	1 J per lamp			
Steady, flashing socket mount LED	Red	900...2240 mcd		
	Green	900...1800 mcd		
	Amber	1400...3550 mcd		
	Blue	224...560 mcd		
	White and yellow	900...1800 mcd		

**Table 109 - Operating Voltage**

Device	Operating Voltage			
	12V AC/DC	24V AC/DC	120V AC	240V AC
Light modules and sound modules	12V AC/DC (±10%)	24V AC/DC (±10%)	110V AC, 50 Hz (±10%) 120V AC, 60 Hz (±10%)	230V AC, 50 Hz (±10%) 240V AC, 60 Hz (±10%)

**Table 110 - Lamp Life Ratings (Design Life) Average Life Under Static, No Vibration, Conditions**

Device	Lamp Life Rating			
	12V AC/DC	24V AC/DC	120V AC	240V AC
Incandescent modules <sup>(1) (2)</sup>	8000 hr	7000 hr	3000 hr	1600 hr
LED modules	100,000 hr			
Strobe modules	15,000 hr			
Sound modules	20,000 hr			

(1) First failures at about 35% of average life. Severe vibration can reduce life to 44% of average life.

(2) Flashing applications can reduce life to 50% of average life.

**Table 111 - Current Consumption**

Device		Current Consumption [mA]		
		24V AC/DC	120V AC	240V AC
Light only modules	Steady LED	22 (red, amber, and yellow) 33 (green, blue, and white)	30 (red, amber, and yellow) 29 (green, blue, and white)	
	Flashing LED	28 (red, amber, and yellow) 36 (green, blue, and white)	30 (red, amber, and yellow) 29 (green, blue, and white)	
	Strobe LED	35 (red, amber, and yellow) 65 (green, blue, and white)	10	
Sound modules	Single-tone	65	31	32

**Table 112 - Flashing and Tone Frequency**

Attribute	Value
	Flashing Frequency (Light Only Modules)
Flashing incandescent modules	12V module approximately 1.5 Hz 24V, 120V, and 240V modules approximately 2 Hz Time ON/Time OFF = 1:1
Flashing LED modules	Approximately 1.5 Hz; Time On/Time OFF = 1:1
LED strobe modules	Approximately 2 Hz (flash duration 1/50,000 second)
Flashing and Tone Frequency (Light Modules/with Sound Set at Continuous Tone)	
Tone frequency	Tone frequency is preset at 2800 Hz
Flashing and Tone Pulsing Frequencies (Light Modules/with Sound Set at Pulsing Tone)	
Tone frequency	Tone frequency is preset at 2800 Hz

**Table 113 - Decibel Rating (Sound Modules) <sup>(1)</sup>**

Device	Decibel Rating
Single-tone sound module (SA3)	Maximum volume ranges from 88 dB(A) or 103 dB(A) (volume adjustable by DIP switch)
Two-tone sound module (TA3)	

(1) All dB(A) ratings are determined at a distance of 1 m (3.3 ft) from the sound module.

**Table 114 - Leakage Current Impact**

All light and sound modules can absorb up to 3 mA of leakage current from solid-state outputs without module activation.

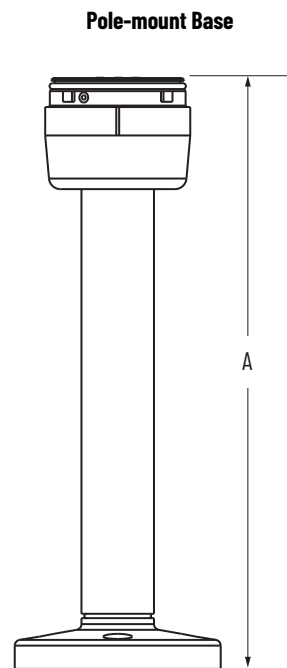
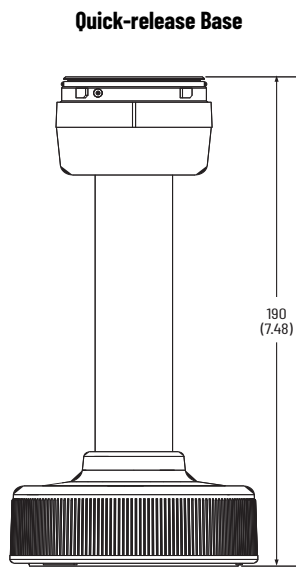
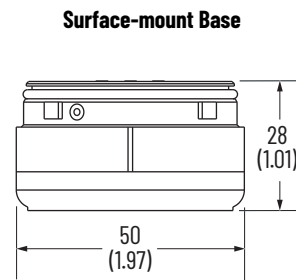
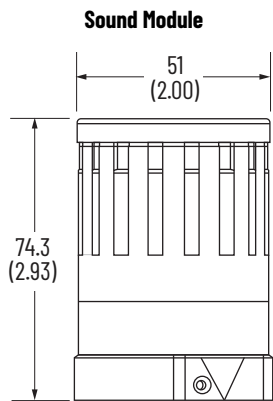
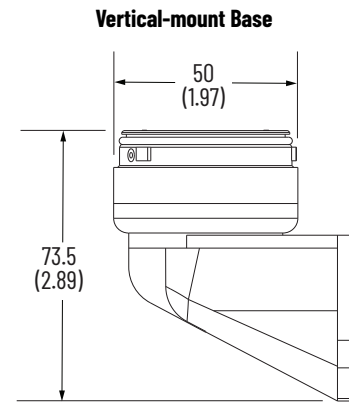
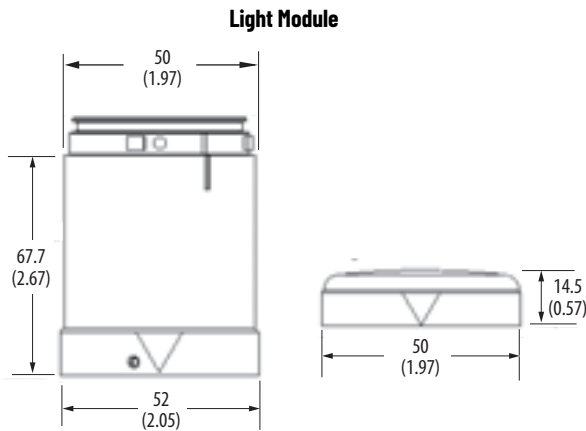
**Table 115 - Standards and Certifications**

Standards Compliance	Certifications
<ul style="list-style-type: none"> <li>UL 508</li> <li>CSA C22.2 No. 14</li> <li>EN/IEC 60947-1</li> <li>EN/IEC 60947-5-1</li> </ul>	<ul style="list-style-type: none"> <li>cULus Listed (File No. E14840, Guides NKCR, NKCR7)</li> <li>CE Marked</li> </ul>



## Approximate Dimensions

Dimensions in millimeters (inches). Dimensions are not intended to be used for manufacturing purposes.



		Pole-mount Base				
Height		PM10	PM25	PM40	PM60	PM80
mm (in.)	A	131 5.16	280.5 11.04	430.5 16.95	630.5 24.82	830.6 32.70

## 70 mm Control Tower Stack Lights

These devices are designed to communicate application status, alerting you to critical equipment and system needs on the plant floor. They can be pre-assembled to save time or ordered as separate light and sound modules for customized field assembly.

### Light Modules

#### Red Flashing Incandescent (Black Housing)



855T - B 10 FN 4  
a b c d

a	
Housing Color	
Code	Description
B	Black
G	Gray

b	
Voltage	
Code	Description
00	0...250V AC/DC (use only with module code XN)
12	12V AC/DC
24	24V AC/DC
10	120V AC
20	240V AC

c	
Light Module Type	
Code	Description
XN	Steady no lamp <sup>(1)</sup>
DN	Steady incandescent
FN	Flashing incandescent
TL	Steady LED
GL	Flashing LED
RL	Rotating LED, simulated with fixed LEDs <sup>(2)</sup>
BR	Strobe

d	
Lens Color	
Code	Description
3	Green
4	Red
5	Amber
6	Blue
7	Clear
8	Yellow

- (1) Use only with Voltage Code 00. Accepts LED module or incandescent lamp.  
 (2) Only available with Voltage Codes 10 or 24, and Color Codes 3, 4, or 5.

## Combined Light Modules with Piezo Sounder

All single-circuit modules contain a selected light option with a sound device that operates simultaneously. All two-circuit modules contain two circuits that allow for separate operation of light or sound. The piezo-style sound modules can be switched to pulsing or continuous sound with a DIP switch. Additionally, the volume can be adjusted to either low (92 dB(A)) or high (107 dB(A)), via a DIP switch. UL Type 4/4X/13, IP65.

### Combination Module



855T - 

B	10	DC	3
a	b	c	d

a	
Housing Color	
Code	Description
B	Black
G	Gray

b	
Voltage	
Code	Description
12	12V AC/DC
24	24V AC/DC
10	120V AC
20	240V AC

c	
Combined Module Type <sup>(1) (2)</sup>	
Code	Description
DC	Steady incandescent with sound
DD	Two-circuit steady incandescent with sound
FC	Flashing incandescent with sound
TC	Steady LED with sound
GC	Flashing LED with sound
BC	Strobe with sound

d	
Lens Color	
Code	Description
3	Green
4	Red
5	Amber
6	Blue
7	Clear
8	Yellow

(1) The single-circuit combined light/with sound module uses one circuit in a stack. It can be used with a maximum of four light modules and must be placed in the top position of a stack.  
 (2) The two-circuit combined light/with sound module uses two circuits in a stack. It can be used with a maximum of three light modules and must be placed in the top position of a stack.

## Transducer-style Sound Modules

- UL Type 12, IP54
- Up to 15 tones
- Adjustable volume from 85...103 dB at 1 m (3.3 ft)
- Adjustable frequency and speed tone

### Sound Module



855T - 

B	10	SA1
a	b	c

a	
Housing Color	
Code	Description
B	Black
G	Gray

b	
Voltage	
Code	Description
12	12V AC/DC
24	24V AC/DC
10	120V AC
20	240V AC

c	
Module Type	
Code	Description
SA1	Single-tone sound module with 13 different tones <sup>(1)</sup>
TA1	Dual-tone sound module with 15 sets of dual-tone combinations <sup>(2)</sup>

(1) This module uses one circuit in a stack. It can be used with maximum of any four light modules and must be placed on top of stack.  
 (2) This module uses two circuits in a stack. It can be used with a maximum of any three light modules and must be placed on top of stack.

## Piezo-style Sound Modules

- Single- or dual-circuit versions
- High/low volume selectable via DIP switch

855T -  $\frac{G}{a}$   $\frac{24}{b}$   $\frac{TA2}{c}$

a	
Housing Color	
Code	Description
B	Black
G	Gray

b	
Voltage	
Code	Description
12	12V AC/DC
24	24V AC/DC
10	120V AC
20	240V AC

c	
Module Type	
Code	Description
SA2	<ul style="list-style-type: none"> <li>• Single-tone/single-circuit piezo-style module with continuous or pulsing tones (modified by a DIP switch)</li> <li>• Type 12</li> <li>• Volume 97 dB or 85 dB @ 1 m (3.3 ft)</li> </ul>
TA2	<ul style="list-style-type: none"> <li>• Dual-tone/dual-circuit piezo-style module with continuous or pulsing tone (modified by energizing one or two circuits of sound modules)</li> <li>• Type 12</li> <li>• Volume 97 dB or 85 dB @ 1 m (3.3 ft)</li> </ul>
SA3	<ul style="list-style-type: none"> <li>• Single-circuit piezo-style module with continuous or pulsing tones (modified by a DIP switch)</li> <li>• Type 4/4X/13</li> <li>• Volume 107 dB or 92 dB @ 1 m (3.3 ft)</li> </ul>
TA3	<ul style="list-style-type: none"> <li>• Dual-circuit piezo-style module with continuous or pulsing tone (modified by energizing one or two circuits of sound modules)</li> <li>• Type 4/4X/13</li> <li>• Volume 107 dB or 92 dB @ 1 m (3.3 ft)</li> </ul>

## Standard and DeviceNet Stack Light Bases

Surface-mount Base with Cap



Vertical-mount Base with Cap



10 cm Pole-mount Base



25 cm Quick-release Base



80 cm Powder-coated Stainless Steel Pole-mount Base with Cap



Surface-mount, Conduit-mount Base with Stranded Wire Cable



Vertical-mount Base with Micro-connect Cable and Cap



10 cm Pole-mount Base with Micro-connect Cable and Cap



40 cm Powder-coated Stainless Steel Pole-mount Base



855T - DL1 B PM10 C  
a b c c

a	
Network Connection Type	
Code	Description
Blank	No network connection
DM1	DeviceNet® micro-connect with 1 m (3.3 ft) cable <sup>(1)</sup>
DS2	DeviceNet® stranded wire connect with 2 m (6.6 ft) cable <sup>(1)</sup>
DL1	DeviceNet mini-connect with 1 m (3.3 ft) cable <sup>(1)</sup>

b	
Housing Color	
Code	Description
B	Black
G	Gray

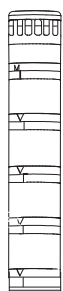
c	
Base Type	
Code	Description
CB	Surface mount—1/2 in. NPT conduit mount
SB	Surface mount – PG16 conduit mount
RB	Surface mount – M20 x 1.5 conduit mount
VM	Vertical mount
TM	25 mm diameter tube mount
PM10	10 cm (3.9 in.) aluminum pole mount base
PM25	25 cm (9.8 in.) aluminum pole mount base
PM40	40 cm (15.7 in.) aluminum pole mount base
SPM10	10 cm (3.9 in.) stainless steel pole mount <sup>(2)</sup>
SPM25	25 cm (9.8 in.) stainless steel pole mount <sup>(2)</sup>
SPM40	40 cm (15.7 in.) stainless steel pole mount <sup>(2)</sup>
SPM60	60 cm (23.6 in.) stainless steel pole mount <sup>(2)</sup>
SPM80	80 cm (31.5 in.) stainless steel pole mount <sup>(2)</sup>
MM10	10 cm (3.9 in.) quick release base
MM25	25 cm (9.8 in.) quick release base
MM40	40 cm (15.7 in.) quick release base

d	
Cap Option	
Code	Description
Blank	No cap
C	Cap included

(1) DeviceNet bases DL1, DM1, or DS2 can only be used with 24V AC/DC and they are only available with Base Types CB, SB, VM, TM, PM10, or PM25.  
 (2) Stainless steel tube is powder-coated in black.

# Pre-configured Control Tower Lights, 1...5 Modules

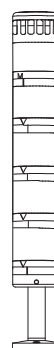
Surface-mount



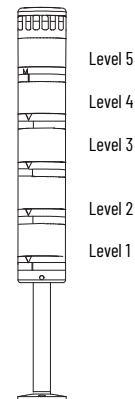
Vertical-mount



10 cm Pole Mount



25 cm Pole Mount



855 TS - DL1 B 24 Y 4 L 5 B 3 F 7 Y 6  
 a b c d e f e f e f e f e f e f  
 (Level 1, e+f) (Level 2, e+f) (Level 3, e+f) (Level 4, e+f) (Level 5, e+f)

<b>a</b>	
<b>Base Type</b>	
Code	Description
TC	Surface mount 1/2 in. NPT conduit
TS	Surface mount PG16 conduit
TV	Vertical mount
TP	10 cm (3.9 in.) pole mount
TE	25 cm (9.8 in.) pole mount
TM	25 mm diameter tube mount

<b>b</b>	
<b>Network Options (1)</b>	
Code	Description
Blank	Standard
DL1	DeviceNet mini-connect with 1 m (3.3 ft) cable
DM1	DeviceNet micro-connect with 1 m (3.3 ft) cable
DS2	DeviceNet stranded wire connect with 2 m (6.6 ft) cable

<b>c</b>	
<b>Housing Color</b>	
Code	Description
B	Black
G	Gray

(1) DeviceNet bases DL1, DM1, or DS2 can only be used with 24V AC/DC.

<b>d</b>	
<b>Voltage</b>	
Code	Description
12	12V AC/DC
24	24V AC/DC
10	120V AC
20	240V AC

<b>e</b>	
<b>Module Type</b>	
Code	Description
D	Steady incandescent
F	Flashing incandescent
Y	Steady LED
L	Flashing LED
B	Strobe
T	Steady incandescent with sound (1)
H	Flashing incandescent with sound (1)
J	Dual-circuit steady incandescent with sound
E	Steady LED with sound (1)
G	Flashing LED with sound (1)
Z	Strobe with sound (1)
A	Transducer single-circuit sounder UL Type 12, IP54 (1)
W	Transducer dual-circuit sounder UL Type 12, IP54 (1)
P	Single-circuit piezo alarm
Q	Dual-circuit piezo alarm

<b>f</b>	
<b>Lens Color/Sound</b>	
Code	Description
1	Sound module (2)
3	Green
4	Red
5	Amber
6	Blue
7	Clear
8	Yellow

(1) Only one sound module or light module/with sound can be assembled per stack. These modules must be placed in the top position.

(2) Sound module from Table f can only be selected with single-tone or two-tone module types from Table e.

## Accessories

See [Accessories – Bulletin 855E/855T on page 78](#).

## Specifications

**IMPORTANT** Based on the weight and style and mounting, tower lights are subject to damage from shock vibration. The following specifications are reference guidelines for maximum acceptable conditions.

**Table 116 - Mechanical**

Attribute		Shock [G]	Vibration [G]
Standard bases	Surface-mount base or 10 cm (3.9 in.) aluminum pole base	1 module stack	5
		3 module stack	1.5
		5 module stack	0.75
	Vertical base or 25 cm (9.8 in.) aluminum pole base	1 module stack	3.5
		3 module stack	1.25
		5 module stack	0.5
DeviceNet bases	Surface-mount base or 10 cm (3.9 in.) aluminum pole base	1 module stack	5
		3 module stack	1.5
		5 module stack	0.75
	Vertical base or 25 cm (9.8 in.) aluminum pole base	1 module stack	3.5
		3 module stack	1.25
		5 module stack	0.5
Recommended wire size		0.5...2.5 mm <sup>2</sup> (22...14 AWG)	
Recommended terminal torque		0.8 N•m (7 lb•in)	

**Table 117 - Environmental**

Attribute	Value	
Ingress ratings	Light modules with cap and combined light/sound modules	UL Type 4/4X/13, IP65
	Sound modules (SA1, SA2, TA1, TA2)	UL Type 12, IP54
	Sound modules (SA3, TA3)	UL Type 4/4X/13, IP65
	Surface, vertical, tube mount, and On-Machine™ bases	UL Type 4/4X/13, IP65
	Pole-mount bases (aluminum)	UL Type 4/13, IP65
	Pole-mount bases (stainless steel)	UL Type 4/4X/13, IP65
Temperature ranges	Operating	-25...+70 °C (-13...+158 °F)
	Storage	-40...+85 °C (-40...+185 °F)

**Table 118 - Materials**

Part	Material
Bases, caps, lens covers, sound module housings, lenses, lamp sockets	Polycarbonate
Rubber seals and gaskets	Nitrile rubber
Pole (for aluminum pole assembly)	Aluminum
Pole base footing (for aluminum pole base)	Polycarbonate
Pole (for stainless steel assembly)	Powder-coated stainless steel
Pole base footing (for stainless steel pole base)	Zinc
Insulation sleeve (for pole insulation)	Polyolefin
Surface and vertical-mount pole connection box and magnetic mount housing	Polycarbonate
Mounting screw washers	Polypropylene
DeviceNet base grommet	Neoprene®
DeviceNet cable jackets	CPE (Chlorinated Polyethylene)
DeviceNet cable connectors	Santoprene®

Table 119 - Light Output

Device		Light Output			
		12V AC/DC	24V AC/DC	120V AC	240V AC
Steady incandescent		0.5 MSCP 6.3 Lumens	2.5 MSCP 31.4 Lumens	3.0 MSCP 37.7 Lumens	0.49 MSCP 6.2 Lumens
Flashing incandescent					
Strobe		3 J per lamp			
Steady/flashing socket mount LED	Red	900...2240 mcd			
	Green	900...1800 mcd			
	Amber	1400...3550 mcd			
	Blue	224...560 mcd			
	White and yellow	900...1800 mcd			

Table 120 - Operating Voltage

Device	Operating Voltage			
	12V AC/DC	24V AC/DC	120V AC	240V AC
Light modules and sound modules	12V AC/DC (±10%)	24V AC/DC (±10%)	110V AC, 50 Hz (±10%) 120V AC, 60 Hz (±10%)	230V AC, 50 Hz (±10%) 240V AC, 60 Hz (±10%)

Table 121 - Lamp Life Ratings (Design Life) Average Life Under Static, No Vibration, Conditions

Device	Lamp Life Rating			
	12V AC/DC	24V AC/DC	120V AC	240V AC
Incandescent modules <sup>(1) (2)</sup>	8000 hr	7000 hr	3000 hr	1600 hr
LED modules	100,000 hr			
Strobe modules	15,000 hr			
Sound modules	20,000 hr			

(1) First failures at about 35% of average life. Severe vibration can reduce life to 44% of average life.

(2) Flashing applications can reduce life to 50% of average life.

Table 122 - Current Consumption

Device		Current Consumption [mA]			
		12V AC/DC	24V AC/DC	120V AC	240V AC
Light only modules	Steady incandescent	208	271	58	23
	Steady or flashing LED	42	29	21	20
	Strobe	240	170	50	35
Light modules with sound	Steady incandescent/with sound	218	281	78	43
	Flashing incandescent/with sound	218	281	78	43
	Steady or flashing LED/with sound (red, amber, yellow)	100	62	22.5	20
	Steady or flashing LED/with sound (green, blue, white)	250	180	70	55
	Strobe/with sound	250	180	70	55
Transducer style sound modules	Single- and two-circuit modules	30	65	110V/50 Hz 120V/60 Hz 60 mA	230V/50 Hz 240V/60 Hz 60 mA
Piezo style sound modules	Single- and two-circuit modules	27	45	43	40
DeviceNet bases		—	70	—	—



**Table 123 - Flashing and Tone Frequency**

Attribute	Value
<b>Flashing Frequency (Light Only Modules)</b>	
Flashing incandescent modules	12V module approximately 1.5 Hz 24V, 120V, and 240V modules approximately 2 Hz Time ON/Time OFF = 1:1
Flashing LED modules	Approximately 1.5 Hz; Time On/Time OFF = 1:1
Strobe modules	Approximately 2 Hz (flash duration 1/50,000 second)
<b>Flashing and Tone Frequency (Light Modules/with Sound Set at Continuous Tone)</b>	
Tone frequency	Preset at 2400 Hz or 3300 Hz
Flashing incandescent/ with sound	12V module approximately 1.5 Hz 24V, 120V, and 240V modules approximately 1.6 Hz
Flashing LED/ with sound	Flashing frequency approximately 1.5 Hz
Strobe/with sound	Flashing frequency approximately 1.4 Hz
<b>Flashing and Tone Pulsing Frequencies (Light Modules/with Sound Set at Pulsing Tone)</b>	
Tone frequency	Preset at 2400 Hz or 3300 Hz
Steady incandescent/ with sound	Sound Pulsing Frequency – 1.5 Hz
Flashing incandescent/ with sound	Flashing and Pulsing Frequency the same for 12V module approximately 1.5 Hz, for 24V, 120V, and 240V modules approximately 1.6 Hz
Steady LED/ with sound	Sound Pulsing Frequency – 1.5 Hz
Flashing LED/ with sound	Flashing and Pulsing Frequency the same at 1.5 Hz
Strobe/with sound	Flashing and Pulsing Frequency the same at 1.4 Hz

**Table 124 - Decibel Rating (Sound Modules)**

Device	Decibel Rating <sup>(1)</sup>
Selectable tone sound module (SA1, TA1)	Maximum volume ranges from 64...103 dB(A) (volume adjustable) Based on tone that is selected for all settings except signal horn, which has a maximum of 80 dB(A)
Piezo sound module (SA2, TA2)	High 97 dB/Low 85 dB, selectable via DIP switch
Piezo sound module (SA3, TA3)	High 107 dB/Low 95 dB, selectable via DIP switch
Piezo light modules and light modules/with sound (set at continuous or pulsing tone)	High 107 dB/Low 95 dB, selectable via DIP switch

(1) All dB(A) ratings are determined at a distance of 1 m (3.3 ft) from sound module.

**Table 125 - Leakage Current Impact**

All light modules, sound modules, and light/sound modules can absorb up to 3 mA of leakage current from solid-state outputs without module activation. Some light and light modules with sound may not turn off completely when connected to solid-state outputs that emit leakage current. The following modules can be affected by an output module emitting a maximum of 3 mA. A dry contact can be used to reduce the effect of leakage current.

12V AC/DC, 24V AC/DC, 120V AC, 240V AC	All light/sound combination modules
--	-------------------------------------

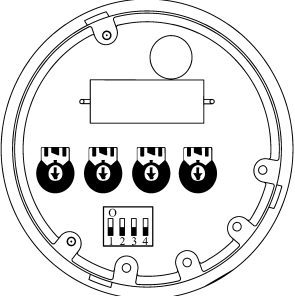












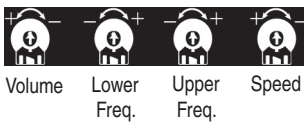













**Table 126 - DeviceNet Bases**

Attribute	Value
Communication rate options	125K, 250K, 500K, Autobaud

**Table 127 - Standards and Certifications**

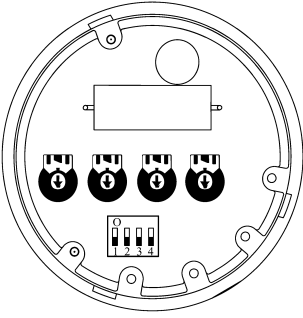



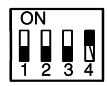


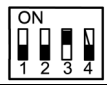


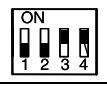


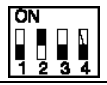


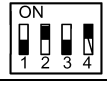
















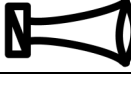








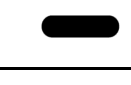

Standards Compliance	Certifications
<ul style="list-style-type: none"> <li>• UL 508</li> <li>• CSA C22.2 No. 14</li> <li>• EN/IEC 60947-1</li> <li>• EN/IEC 60947-5-1</li> </ul>	<ul style="list-style-type: none"> <li>• cULus Listed (File No. E14840, Guides NKCR, NKCR7)</li> <li>• CE Marked</li> </ul>

## Transducer Style Single-circuit Sound Module (SA1)

	DIP Switch Position	Tone Description	Speed [Hz]	Upper Frequency [Hz]	Lower Frequency [Hz]	Volume [dB(A)]	
<b>Adjustable Sound Settings</b>							
		Triangle Tone		7...22	1500	500	80...100
		Continuous Tone		—	(1)	500	83...100
		Interrupted Tone		0.5...1.5	(1)	500...1500	83...103
		Changing Tone		0.5...1.5	500...1500	500...1500	83...103
		Saw Tooth Tone Ascending		0.5...1.5	500...1500	500...1500	83...103
		Saw Tooth Tone Descending		0.5...1.5	500...1500	500...1500	83...103
<b>Rotated View of Sound Settings</b>							
		Sine wave Tone		0.5...1.5	500...1500	500...1500	82...102
		DIN-Emergency Signal	DIN 33404	1	1200	500	82...102
		Siren (Non-repeating)		2...4 s	1500	500	83...103
		Signal Horn Continuous Tone		—	(1)	100...350	64...80
		Three-tone Gong		2...4 s	660 550 440	660 550 440	76...95
		Two-tone Gong		2...4 s	550 440	550 440	75...93
		Gong		1...3 s	(1)	500...1500	75...93

(1) Set to maximum (+).

## Transducer Style Dual-circuit Sound Module (TA1)

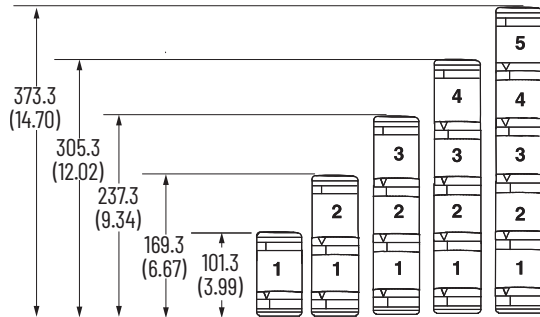
	DIP Switch Position	Tone A	Tone B
<b>Adjustable Sound Settings</b>			
		Triangle Tone 	Continuous Tone 
		Continuous Tone 	Changing Tone 
		Continuous Tone 	Interrupted Tone 
		Interrupted Tone 	Three-tone Gong 
		Interrupted Tone 	Siren (Non-repeating) 
		Changing Tone 	DIN-Emergency Signal DIN 33404
		Saw Tooth Tone Ascending 	Continuous Tone 
<b>Rotated View of Sound Settings</b>			
		Saw Tooth Tone Descending 	Interrupted Tone 
		Sine-wave Tone 	DIN-Emergency Signal DIN 33404
		DIN-Emergency Signal DIN 33404	Three-tone Gong 
		Siren (Non-repeating) 	Triangle Tone 
		Signal Horn Continuous Tone 	Continuous Tone 
		Three-tone Gong 	Sine-wave Tone 
		Two-tone Gong 	Two-tone Gong (Non-repeating) 
		Gong 	Continuous Tone 

## Approximate Dimensions

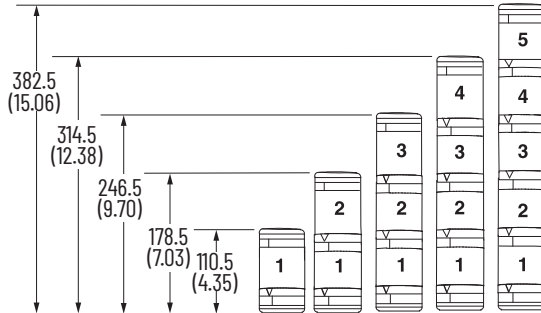
Dimensions in millimeters (inches). Dimensions are not intended to be used for manufacturing purposes.

**Table 128 - Assembled Control Tower Lights – Light Modules Only or Light Modules with Sound Module on Top Position <sup>(1)</sup>**

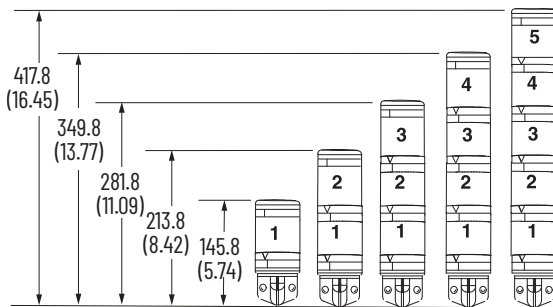
**Surface-mount Base (SB and CB)**



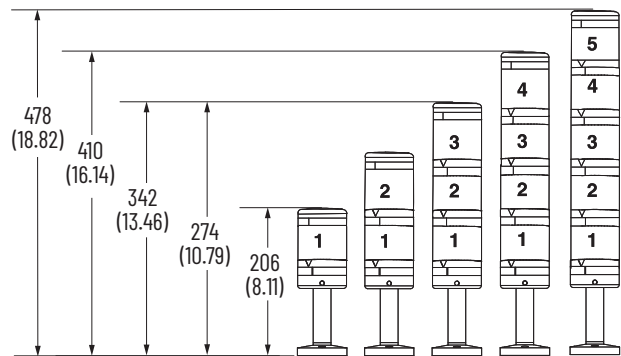
**Tube-mount Base (TB)**



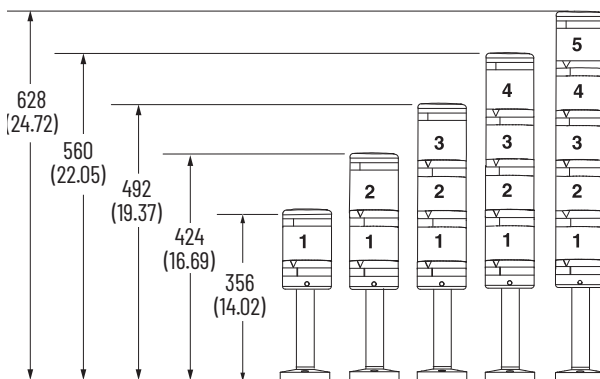
**Vertical-mount Base**



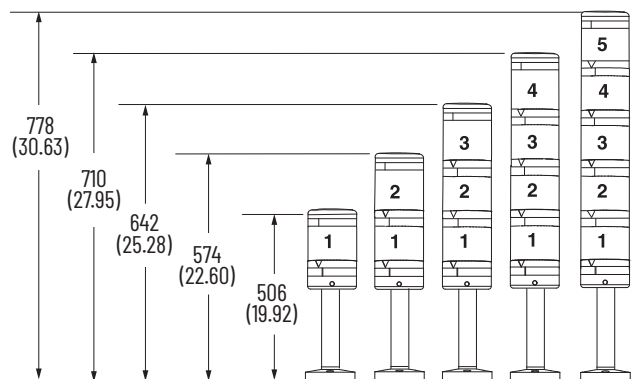
**10 cm Pole-mount Base (PM10, SPM25)**



**25 cm Pole-mount Base (PM25, SPM25)**



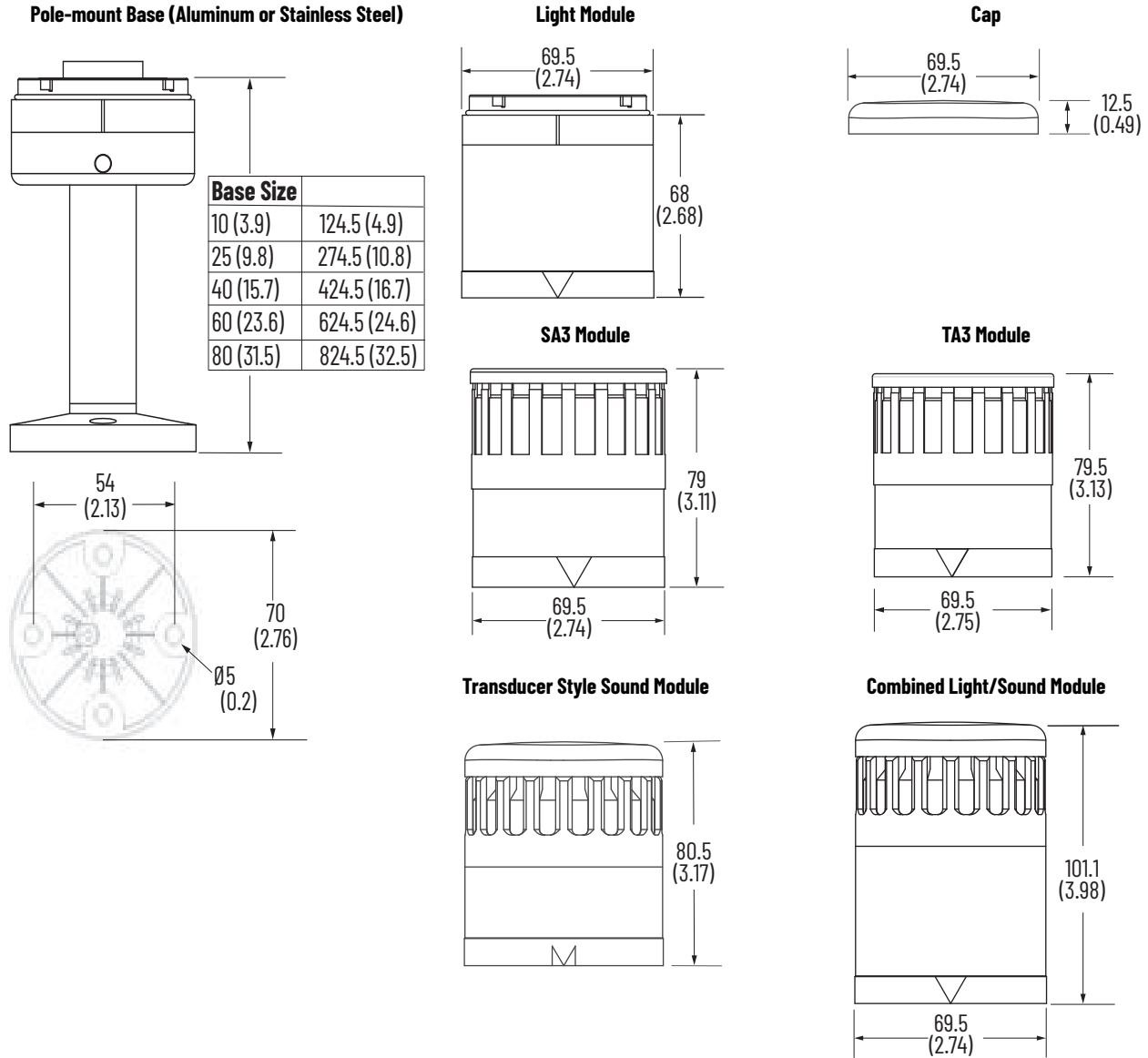
**80 cm Pole-mount Base (SPM80)**



(1) If a combined light/sound module is used, add 21.5 mm (0.8 in.) to vertical dimensions.

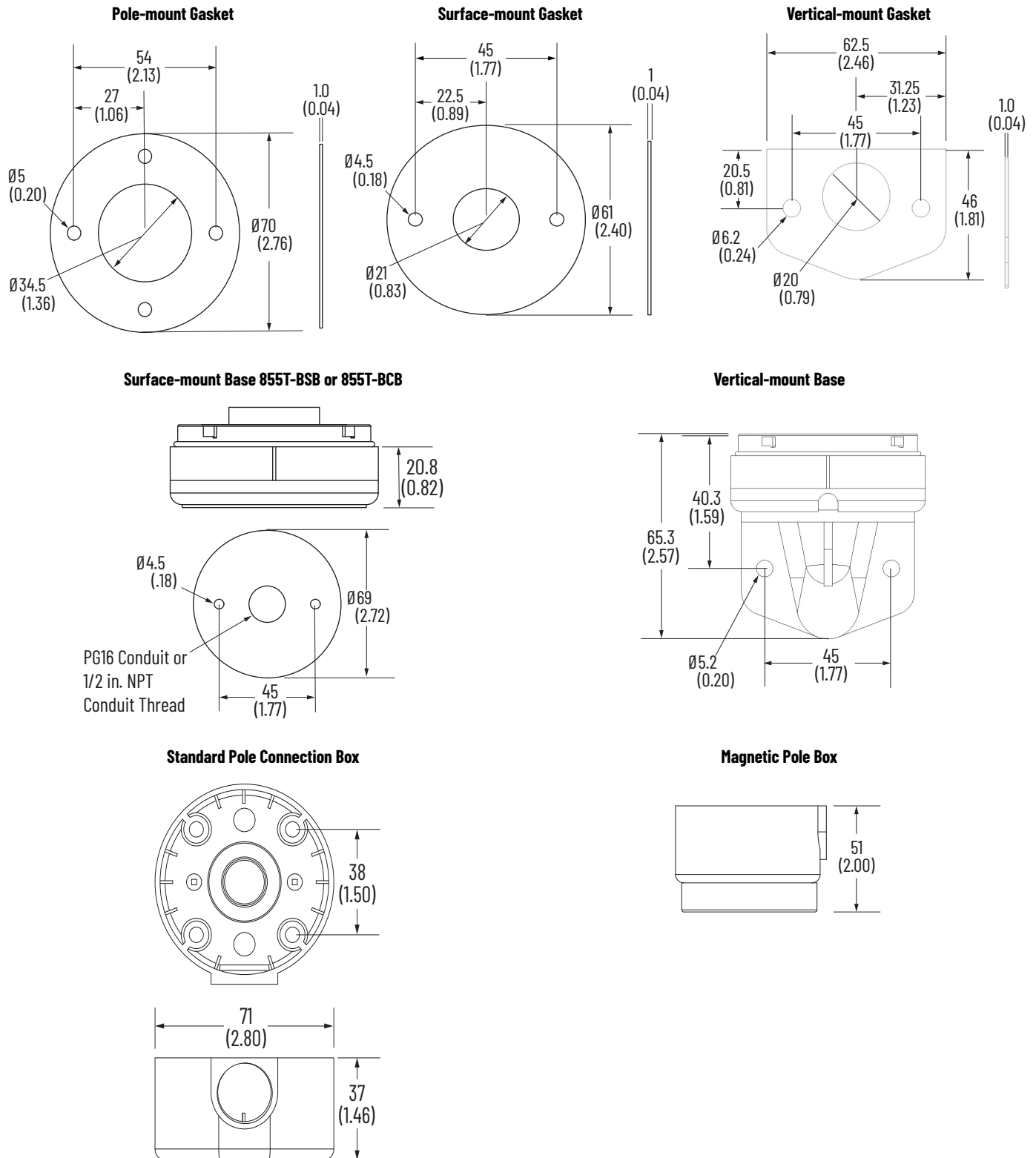
Dimensions in millimeters (inches). Dimensions are not intended to be used for manufacturing purposes.

**Table 129 - Component and Accessory Dimensions**



Dimensions in millimeters (inches). Dimensions are not intended to be used for manufacturing purposes.

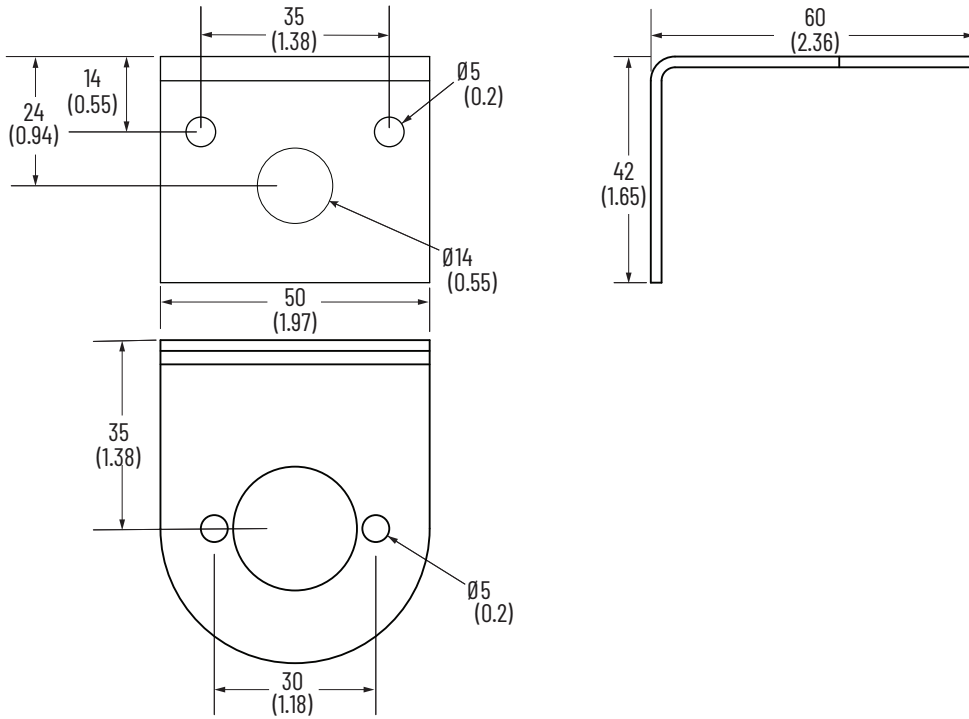
**Table 130 - Component and Accessory Dimensions**



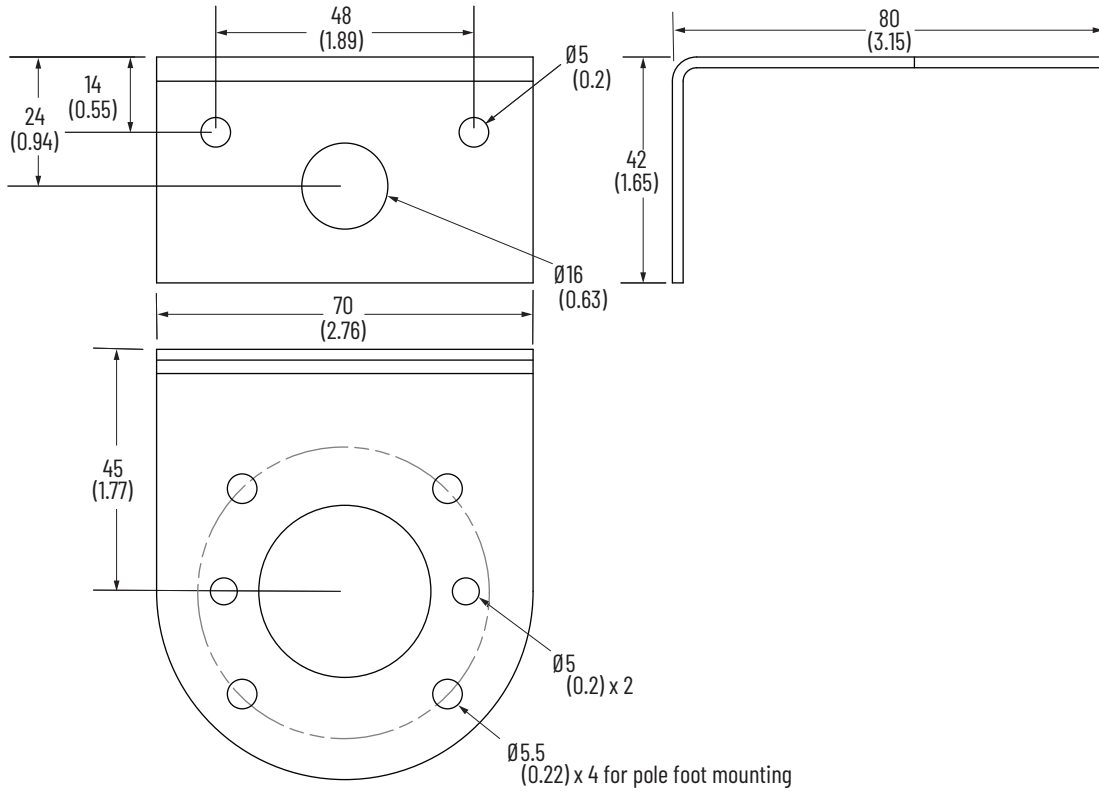
Dimensions in millimeters (inches). Dimensions are not intended to be used for manufacturing purposes.

**Table 131 - Component and Accessory Dimensions**

**Vertical-mount Bracket Cat. No. 855E-AVM**



**Vertical-mount Bracket Cat. No. 855T-AVM**



# Bulletin 856T 70 mm Control Tower Stack Lights

These devices give you the flexibility to meet the widest range of applications with a reduced number of components. This system uses a modular design that incorporates brighter LED illumination and a broad offering of sound technologies. All signals in the system are 24V AC/DC powered, which means that just three power modules can cover the entire system. They can be purchased as separate components or as a preconfigured, factory-assembled stack light for optimal flexibility.

## Light Modules

**Steady LED Module**



**Multi-function LED Module**



**Steady/Flashing Beacon Style**



856T - B T 4  
           a       b       c

a	
Housing Color	
Code	Description
B	Black

b	
Module Type	
Code	Description
T	Steady LED
B	Multi-function LED steady/flashing/strobe 1/strobe 2
R	Rotating LED
MC	7-color LED (RGB) <sup>(1)(2)</sup>
GB	Steady/flashing, non-stackable beacon style
SB	Strobe 1/strobe 2, non-stackable beacon style <sup>(3)</sup>
RB	Rotating LED, non-stackable beacon style <sup>(4)</sup>
MB	7-color LED (RGB), non-stackable beacon style <sup>(1)(2)</sup>

c	
Output Color	
Code	Description
3	Green
4	Red
5	Amber
6	Blue
7	Clear
8	Yellow
9	Magenta <sup>(5)</sup>
Blank	For use with Module Type MC and MB only

- (1) Output Color must be Blank (Table c).
- (2) Can use three circuits to display up to seven colors, two circuits to display three colors, or one circuit to display one color.
- (3) Can only be used with Output Color 4, 5, or 6 (Table c).
- (4) Can only be used with Output Color 4 or 5 (Table c).
- (5) Cannot be used with Module Type R and GB (Table b).



## Sound Modules

Transducer Sounder



Recordable Sounder



In-line Piezo Sounder



Top-mount Piezo Sounder



856T - B P1  
a b

a	
Housing Color	
Code	Description
B	Black

b	
Module Type	
Code	Description
P1	Single-circuit piezo, eight tones, top mount
TR3	Transducer, 16 tone tables/seven tones per table, three circuits <sup>(1)</sup>
PL1	In-line piezo, single circuit, eight tones
H3	Recordable sounder, up to 7 messages, three circuits <sup>(2)</sup>

- (1) Can use three circuits to play up to seven tones, two circuits to play three tones, or one circuit to play one tone.
- (2) Can use three circuits to play up to seven messages, two circuits to play three messages, or one circuit to play one message

## Power Modules

24V AC/DC (seven circuits)



120/240V AC (three circuits)



120/240V AC (seven circuits)



856T - B 24 C  
a b c

a	
Housing Color	
Code	Description
B	Black

b	
Voltage	
Code	Description
24	24V AC/DC, seven circuits
AC3	90...250V AC, three circuits
AC7	90...250V AC, seven circuits

d	
Cap Option	
Code	Description
C	Cap included

# IO-Link Module

## IO-Link Module



856T -  $\frac{B}{a}$   $\frac{24}{b}$   $\frac{LC}{c}$

a	
Housing Color	
Code	Description
B	Black

b	
Voltage	
Code	Description
24	24V DC

d	
Cap Option	
Code	Description
LC	Cap not included

# Base Mounting Adapters

Surface-mount 1/2 in. NPT

Surface-mount with screws

Vertical-mount

Pole-mount

Threaded Tube-mount



856T -  $\frac{BMA}{a}$   $\frac{P10}{b}$

a	
Housing Color	
Code	Description
BMA	Black

b	
Mounting Style	
Code	Description
SN	NPT surface mount, Type 4/4X/13
VM	Vertical mount
SH	Surface mount NPT, Type 4/4X/13, pre-installed mounting hardware
P10	10 cm (3.9 in.) aluminum pole mount
P25	25 cm (9.8 in.) aluminum pole mount
P40	40 cm (15.7 in.) aluminum pole mount
P60	60 cm (23.6 in.) aluminum pole mount
T10	10 cm (3.9 in.) threaded tube (M20)
T25	25 cm (9.8 in.) threaded tube (M20)

# Pre-assembled Bases

Surface-mount with M12 Micro-connector (5-pin)



Surface-mount with M12 Micro-connector (8-pin)



Surface-mount for 24V AC/DC (7 circuits)  
Cat. No. 856T-B24SNC



Vertical-mount for 120/240V AC (7 circuits)  
Cat. No. 856T-BA7VMC



Quick-release Five Levels (pre-wired)



10 cm Pole for 120/240V AC (3 circuits)  
Cat. No. 856T-BA3P10C



856T -                           
          a      b      c      d      e

a	
Network Option	
Code	Description
Blank	No network option

b	
Housing Color	
Code	Description
B	Black

c	
Voltage	
Code	Description
24	24V AC/DC, seven circuits
A3	90...250V AC, three circuits
A7	90...250V AC, seven circuits

d	
Mounting Style	
Code	Description
SN	1/2 in. NPT surface mount
VM	Vertical mount
SH	Surface mount, preinstalled mounting hardware
P10	10 cm (3.9 in.) aluminum pole mount
P25	25 cm (9.8 in.) aluminum pole mount
P40	40 cm (15.7 in.) aluminum pole mount
P60	60 cm (23.6 in.) aluminum pole mount
T10	10 cm (3.9 in.) threaded tube (M20)
T25	25 cm (9.8 in.) threaded tube (M20)
Q10	10 cm (3.9 in.) quick release <sup>(1)</sup>
Q25	25 cm (9.8 in.) quick release <sup>(1)</sup>
Q05	5-pin M12 connector, M30 mounting thread <sup>(1)</sup>
Q08	8-pin M12 connector, M30 mounting thread <sup>(1)</sup>

e	
Cap Option	
Code	Description
C	Cap included

(1) Can only be used with Voltage code 24 (Table c).

# Pre-configured Control Tower Lights, 1...7 Modules

856TC	-	P10	B	24	Y	4	B	5	B	3	R	7	Y	6	R	8	B	6	
		a	b	c	d	e	f	e	f	e	f	e	f	e	f	e	f	e	f
		(Level 1, e+f)		(Level 2, e+f)		(Level 3, e+f)		(Level 4, e+f)		(Level 5, e+f)		(Level 6, e+f)		(Level 7, e+f)					

a	
Network Options	
Code	Description
Blank	No network option
L	IO-Link communication <sup>(1)</sup>

b	
Base Type	
Code	Description
SN	1/2 in. NPT surface mount
VM	Vertical mount
SH	Surface mount, preinstalled mounting hardware
P10	10 cm (3.9 in.) aluminum pole mount
P25	25 cm (9.8 in.) aluminum pole mount
P40	40 cm (15.7 in.) aluminum pole mount
P60	60 cm (23.6 in.) aluminum pole mount
Q10	10 cm (3.9 in.) quick release <sup>(2) (3)</sup>
Q25	25 cm (9.8 in.) quick release <sup>(2) (3)</sup>
QD5	5-pin M12 connector <sup>(2) (4)</sup>
QD8	8-pin M12 connector <sup>(2)</sup>
T10	10 cm (3.9 in.) threaded tube (M20)
T25	25 cm (9.8 in.) threaded tube (M20)
X	No base (modules only) <sup>(5)</sup>

c	
Housing Color	
Code	Description
B	Black

- (1) IO-Link communication is available with Base Type codes SN, VM, SH, P10, P25, P40, P60, T10, and T25 only (Table b).  
 (2) Must be used with Voltage code 24 (Table d).  
 (3) Maximum number of circuits is five.  
 (4) Maximum number of circuits is four.  
 (5) Voltage code Blank (Table d) must be for this option.








d	
Voltage	
Code	Description
24	24V AC/DC, seven circuits <sup>(1)</sup>
A3	90...250V AC, three circuits
A7	90...250V AC, seven circuits
Blank	For use with Base Type code X only (Table b)

e	
Module Type	
Code	Description
Y	Steady LED
B	Multi-function LED steady/flashing/strobe 1/strobe 2
R	Rotating
MC	7-color LED (RGB) <sup>(2) (3)</sup>
P	Top mount piezo sounder <sup>(4)</sup>
T	Transducer <sup>(4) (5)</sup>
D	Beacon, steady/flashing <sup>(4)</sup>
K	Beacon, strobe 1/strobe 2 <sup>(4) (6)</sup>
Z	Beacon, rotating <sup>(4) (7)</sup>
MB	Beacon, multicolor <sup>(2) (3) (4)</sup>
W	In-line piezo sounder
H	Recordable sounder <sup>(4) (8)</sup>

f	
Output Color/Sound	
Code	Description
1	Sound module <sup>(9)</sup>
3	Green
4	Red
5	Amber
6	Blue
7	White
8	Yellow
9	Magenta <sup>(10)</sup>
Blank	For use with Module Type code MC and MB only (Table e)

- (1) For IO-Link configurations, Voltage code 24 is 24V DC only.  
 (2) Output Color code must be Blank (Table f).  
 (3) Can use three circuits to display up to seven colors, two circuits to display three colors, or one circuit to display one color.  
 (4) Must be in top position.  
 (5) Can use three circuits to play up to seven tones, two circuits to play three tones, or one circuit to play one tone.  
 (6) Can only be used with Output Color codes 4, 5, or 6 (Table f).  
 (7) Can only be used with Output Color codes 4 or 5 (Table f).  
 (8) Can use three circuits to play up to seven messages, two circuits to play three messages, or one circuit to play one message.  
 (9) Can only be selected with Module Type codes P, H, T, and W (Table e).  
 (10) Cannot be used with Module Type codes R, D, K, and Z (Table e).

## Accessories

Description		Cat. No.
	Replacement O-ring for lenses and bases (bag of 1)	856T-ARNG
	Replacement flat gasket for SN and SH surface bases (bag of 1)	856T-ASFG
	Replacement vertical mount gasket (bag of 1)	856T-AVFG
	Cap (black)	856T-ABCAP
	Transition module for mounting Bulletin 856T modules on existing Bulletin 855T DeviceNet® bases (five circuits, max)	856T-ATM
	Diffuser kit	856T-ADK
	Vertical Mount Kit Kit includes vertical bracket and set of three sealing washers. For use with: 856T and 855E pole mount bases, 856T surface mount bases, and 856T M12 QD bases.	855T-AVM
	M5 x 50 mm mounting screws (bag of 4) For mounting Bulletin 856T pole foot base to Bulletin 855T pole connection box	856T-AJBS

## Specifications

Table 132 - Shock and Vibration <sup>(1)</sup>

Attribute		Based on the weight and style of mounting; tower lights are subject to damage from shock and vibration. The following are reference guidelines for maximum acceptable conditions.			
		Control Tower™ Stack Lights		IO-Link Module	
		Shock, Peak [G]	Vibration, Peak [G]	Shock, Peak [G]	Vibration, Peak [G]
Surface mount base	24V and AC three-circuit	50	3	20 <sup>(2)</sup>	3 <sup>(2)</sup>
	AC seven-circuit	25	3	—	—
Vertical mount base		50	3	50	3
Pole/tube base	10 cm	50	3	50	3
	25 cm	50	3	50	3
Pole base	40 cm	50	3	50	3
	60 cm	50	3	50	3
QR base		50	3	—	—
QD base		50	3	—	—
Recommended wire size		24...14 AWG (UL)/0.2...1.5 mm <sup>2</sup> (IEC) (push-in type terminal block)			

(1) For the IO-Link module (856T-B24LC), vibration is according to EN 60068-2-6, EN60721-3-2 Class 2M2 and shock is according to EN60068-2-27.

(2) These values are for a surface mount base with seven modules stacked. If only five modules are stacked, shock, peak = 30 G and vibration, peak = 3 G.

Table 133 - Environmental

Attribute	Control Tower Stack Lights and IO-Link Module
Ingress ratings	UL Type 4/4X/ 13, IP66/67 <sup>(1)</sup> Suitable for indoor and outdoor use
Temperature ranges	Operating -30...+70 °C (-22...+158 °F) <sup>(2)</sup>
	Storage -30...+85 °C (-22...+185 °F)
Relative humidity	90% noncondensing

(1) QR bases are IP66.

(2) -30...+45 °C (-22...+113 °F) for QD bases.

**Table 134 - Materials**

Device	Part	Material <sup>(1)</sup>
Control Tower stack lights	Bases, cap, sound module housing, lens, pole foot, diffuser	Polycarbonate
	Threaded tube/pole bases	Aluminum with clear powder coat
	Gaskets and O-rings	Nitrile rubber
	Mounting screw washers	Polypropylene
IO-Link module	Housing and cover	Polycarbonate
	M12 connector	Nylon
	Connector O-rings	Silicone <sup>(2)</sup>
	IO-Link module O-ring	Nitrile rubber

(1) RoHS compliant

(2) The O-ring was tested to be well below 1% by weight when tested according to GMW17224 (Test for Volatiles in Silicone Rubber).

**Table 135 - Decibel Rating (Sound Modules)**

Device	Decibel Rating <sup>(1)</sup>	Volume Control	Number of Tones/Messages
856T-BP1, piezo, top mount	105 dB(A), max	Adjustable -20 dB	8
856T-BTR3, transducer	Rated: 105 dB(A) (107 dB(A), max @ 2700 Hz)	Adjustable -10 dB (also three adjustment pots for tone customization)	80 tones, seven stages configured via DIP switch and three inputs
856T-BPL1, piezo, in-line	102 dB(A), max	Adjustable -20 dB	8
856T-BH3, recordable	Voice: 90 dB(A), max Tone: 95 dB(A)	Adjustable -10 dB	Plays up to seven user-recorded voice messages

(1) All dB(A) ratings are determined at a distance of 1 m (3.3 ft) from sound module.

**Table 136 - IO-Link Module Specifications**

Attribute	IO-Link Module (856T-B24LC)	
Status indicator	Bicolor (red/green) LED	
Communication rate	COM3 (230.4 kBd)	
IO-Link cycle time, min	2 ms	
Process data	Input bit length	48 bits (6 Bytes)
	Output bit length	56 bits (7 Bytes)
IO-Link standard (version)	1.1.2	
M12 connector	5-pin, Class B	
MTTF	41,600 hr	

Table 137 - Light Output

Device	Light Output [mcd]	
<b>Steady</b>		
856T-BT3 (green)	7200	
856T-BT4 (red)	5200	
856T-BT5 (amber)	9500	
856T-BT6 (blue)	1300	
856T-BT7 (white)	17,200	
856T-BT8 (yellow)	15,800	
856T-BT9 (magenta)	5600	
<b>Multifunction</b>		
856T-BB3 (green)	12,600	
856T-BB4 (red)	Four functions: • Steady • Flashing (2 Hz) • Single strobe (1.4 Hz) • Double flash strobe (1.4 Hz) (Selectable via DIP switches)	6900
856T-BB5 (amber)		16,700
856T-BB6 (blue)		2300
856T-BB7 (white)		30,300
856T-BB8 (yellow)		27,800
856T-BB9 (magenta)		9900
<b>Rotating</b>		
856T-BR3 (green)	Two rotating speeds: • Speed 1 = 90 RPM • Speed 2 = 180 RPM (Selectable via DIP switch)	6300
856T-BR4 (red)		5000
856T-BR5 (amber)		8300
856T-BR6 (blue)		1100
856T-BR7 (white)		15,000
856T-BR8 (yellow)		13,800

Device	Light Output [mcd]	
<b>Multicolor</b>		
856T-BMC	Seven colors: • Green • White • Red • Magenta • Yellow • Turquoise • Blue (Selectable via three inputs)	4800
<b>Beacon (Steady/Flashing)</b>		
856T-BGB3 (green)	Steady or flashing function selectable via DIP switch or by using two inputs (Flashing frequency = 2 Hz)	8400
856T-BGB4 (red)		7200
856T-BGB5 (amber)		11,100
856T-BGB6 (blue)		1500
856T-BGB7 (white)		20,000
856T-BGB8 (yellow)		18,400
<b>Beacon (Strobe)</b>		
856T-BSB4 (red)	Single or double strobe function selectable via DIP switch (1.4 Hz)	10,600
856T-BSB5 (amber)		21,300
856T-BSB6 (blue)		2900
<b>Beacon (Rotating)</b>		
856T-BRB4 (red)	Two speeds: • Speed 1 = 90 RPM • Speed 2 = 180 RPM (Selectable via DIP switch)	7500
856T-BRB5 (amber)		23,200
<b>Beacon (Multicolor)</b>		
856T-BMB	Seven colors: • Green • White • Red • Magenta • Yellow • Turquoise • Blue (Selectable via three inputs)	8100

 Table 138 - Operating Voltage <sup>(1)</sup>

Device	Operating Voltage	
	Nominal Voltage	Voltage Range
All modules	24V AC/DC, 50/60 Hz	21...30V DC/ 21.6...26.4V AC
856T-B24C		
856T-BAC3C, three-circuit SMPS	120/240V AC	90...250V AC, 50/60Hz
856T-BAC7C, seven-circuit SMPS	120/240V AC	90...250V AC, 50/60Hz
856T-B24LC <sup>(2)</sup>	24V DC	18...30V DC per IO-Link specification

(1) Maximum input switching frequency for SMPS (that is, from a PLC) is 5 Hz.

(2) At 24V DC, operating current consumption is 30 mA and inrush current is 0.1A.

**Table 139 - Current Consumption and Life**

Device	Nominal Current	Inrush Current	Life	
<b>Power Modules</b>				
856T-B24C	–	–	–	
856T-BAC3C, three-circuit SMPS	150 mA, max	6 A, max	30,000 hr	
856T-BAC7C, seven-circuit SMPS	340 mA, max	3.5 A, max	30,000 hr	
<b>Sound Modules</b>				
856T-BP1, piezo, top mount	120 mA	1.8 A DC 2.15 A AC	20,000 hr	
856T-BTR3, transducer	200 mA	1.06 A DC 1.24 A AC	20,000 hr	
856T-BPL1, piezo, in-line	120 mA	1.8 A DC 2.15 A AC	20,000 hr	
856T-BH3, recordable	140 mA	0.5A DC 1.0 A AC	10,000 hr	
<b>Steady Light Modules</b>				
856T-BT3 (green)	58 mA	–	>60,000 hr	
856T-BT4 (red)		–	>40,000 hr	
856T-BT5 (amber)		–	>60,000 hr	
856T-BT6 (blue)		–		
856T-BT7 (white)		–		
856T-BT8 (yellow)		–		
856T-BT9 (magenta)		–		
<b>Multifunction Light Modules</b>				
856T-BB3 (green)		100 mA	1.79 A DC 2.66 A AC	>60,000 hr
856T-BB4 (red)	1.82 A DC 2.66 A AC		>40,000 hr	
856T-BB5 (amber)	1.79 A DC 2.66 A AC		>60,000 hr	
856T-BB6 (blue)				
856T-BB7 (white)				
856T-BB8 (yellow)				
856T-BB9 (magenta)				

Device	Nominal Current	Inrush Current	Life
<b>Rotating Light Modules</b>			
856T-BR3 (green)	40 mA	1.79 A DC 2.64 A AC	>60,000 hr
856T-BR4 (red)	45 mA	1.79 A DC 2.66 A AC	>40,000 hr
856T-BR5 (amber)	40 mA	1.79 A DC 2.64 A AC	>60,000 hr
856T-BR6 (blue)			
856T-BR7 (white)			
856T-BR8 (yellow)			
<b>Multicolor Light Modules</b>			
856T-BMC	110 mA	1.30 A DC 1.94 A AC	30,000 hr
<b>Beacon Light Modules (Steady/Flashing)</b>			
856T-BGB3 (green)	100 mA	0.74 A DC 1.24 A AC	>60,000 hr
856T-BGB4 (red)	108 mA	0.70 A DC 1.16 A AC	>40,000 hr
856T-BGB5 (amber)	100 mA	0.74 A DC 1.24 A AC	>60,000 hr
856T-BGB6 (blue)			
856T-BGB7 (white)			
856T-BGB8 (yellow)			
<b>Beacon Light Modules (Strobe)</b>			
856T-BSB4 (red)	190 mA	0.76 A DC 1.11 A AC	>40,000 hr
856T-BSB5 (amber)		0.77 A DC 1.11 A AC	>60,000 hr
856T-BSB6 (blue)			
<b>Beacon Light Modules (Rotating)</b>			
856T-BRB4 (red)	65 mA	0.74 A DC 1.09 A AC	>40,000 hr
856T-BRB5 (amber)		0.75 A DC 1.11 A AC	>60,000 hr
<b>Beacon Light Modules (Multicolor)</b>			
856T-BMB	200 mA	1.65 A DC 2.46 A AC	30,000 hr

**Table 140 - Certifications**

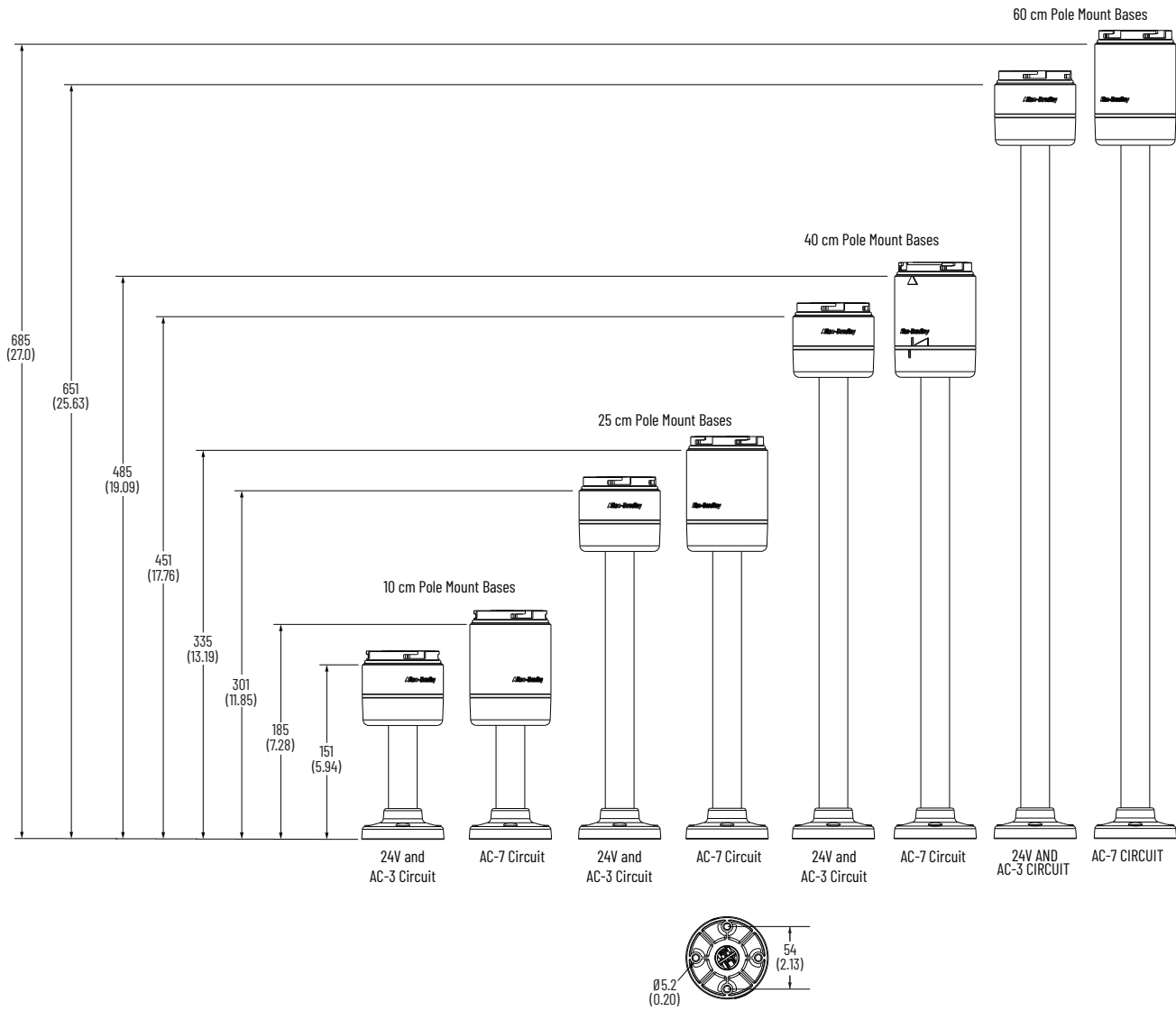
70 mm Control Tower Stack Lights	IO-Link Module (856T-B24LC)
• UL 60947-5-1	• c-UL-us
• CSA C22.2 No. 14	• CE (EMC and RoHS)
• c-UL-us Listed (File No. E14840, Guides NKCR, NKCR7)	• EMC compliance: 60947-5-1 standard
• KCC (Registration No. R-REM-RAA-856T)	• UKCA
• China RoHS	• RCM
• WEEE	• KCC
• RCM (EN 61000-6-2:2005 and EN 61000-6-3:2007 + A1:2011)	• Morocco
• CE Marked	– EN 60947-5-1:2004 + A1:2009 – EN 61000-6-2:2005 – EN 61000-6-3:2007 + A1:2011 – EN 50581: 2012 2014/35/EU (Low Voltage Directive) 2014/30/EU (EMC Directive) 2011/65/EU (RoHS Directive)



# Approximate Dimensions

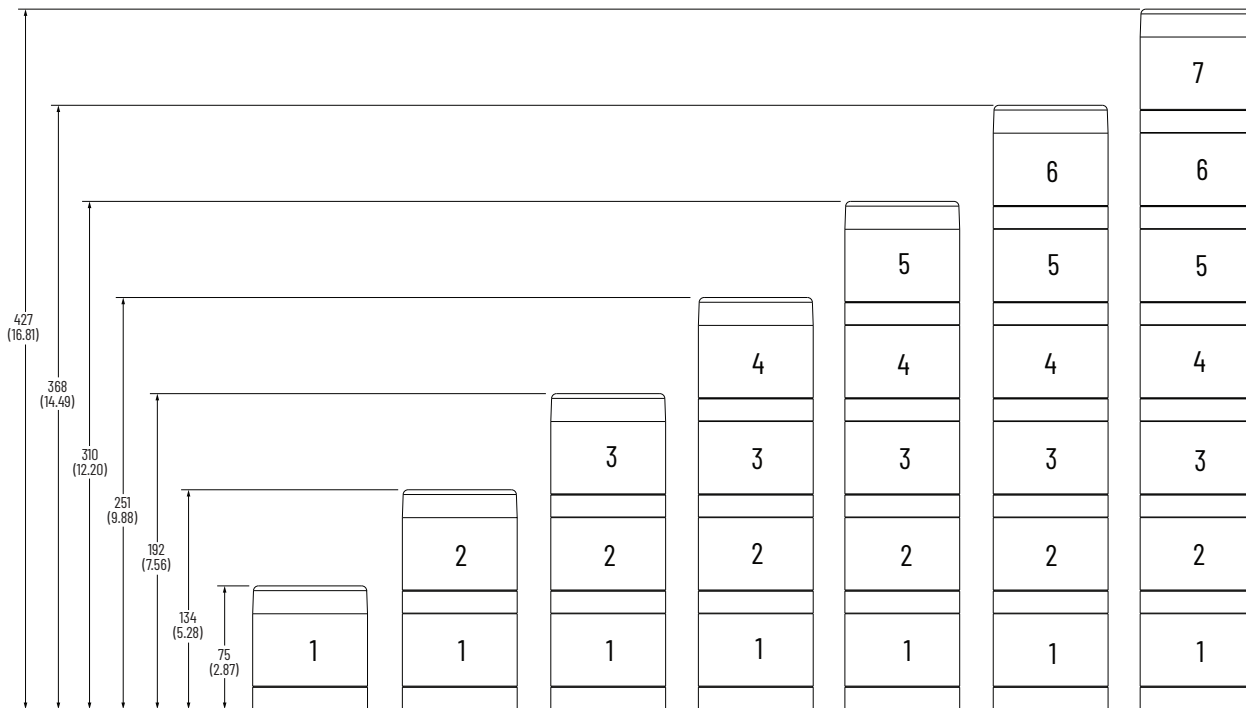
Dimensions in millimeters (inches). Dimensions are not intended to be used for manufacturing purposes.

Figure 2 - Pole Mount Bases



Dimensions in millimeters (inches). Dimensions are not intended to be used for manufacturing purposes.

**Figure 3 - LED Light Modules**



**Figure 4 - IO-Link Module Dimensions**

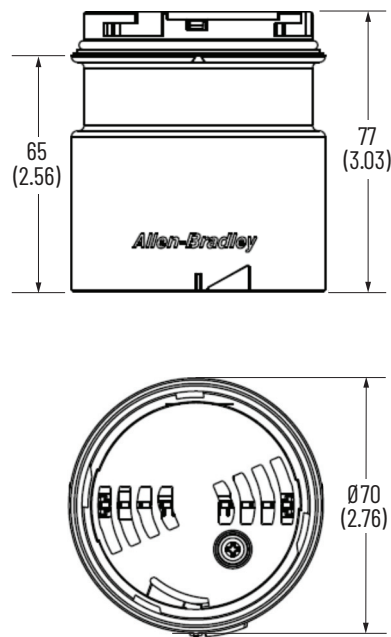
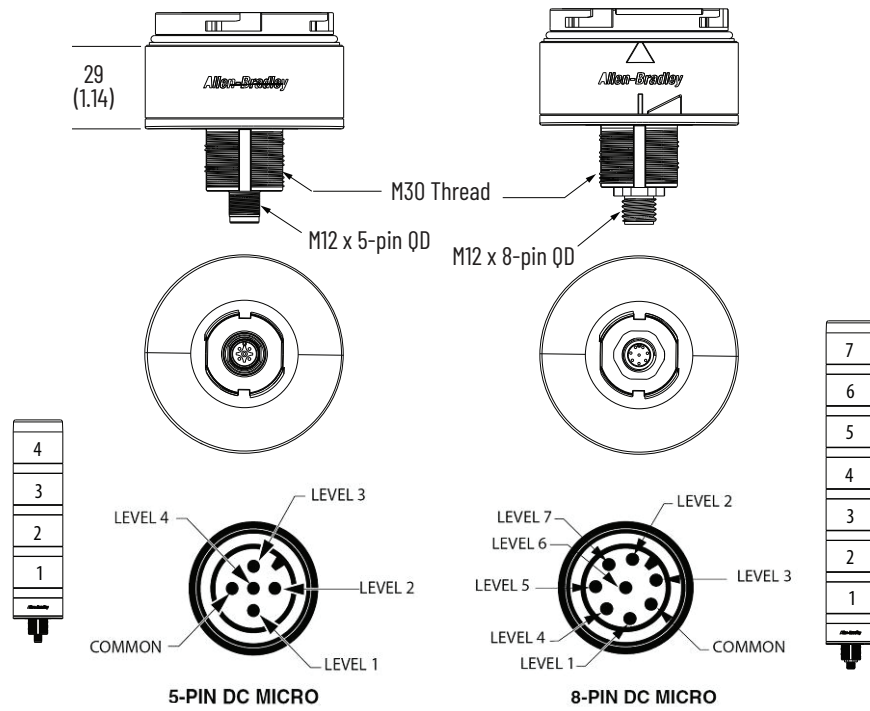
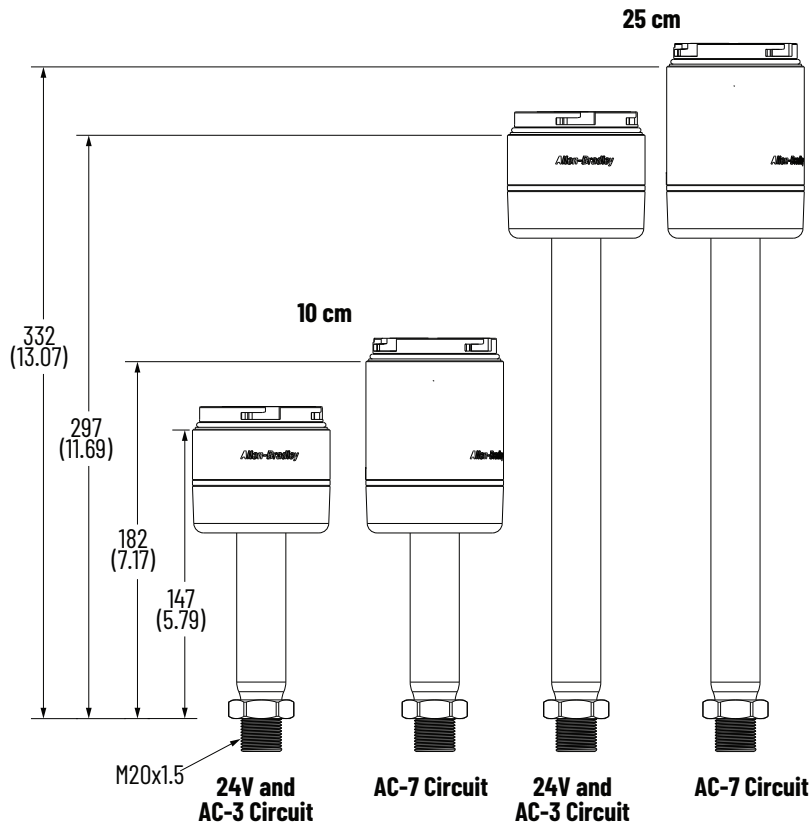


Figure 5 - Component and Accessory Dimensions

Quick Disconnect Bases

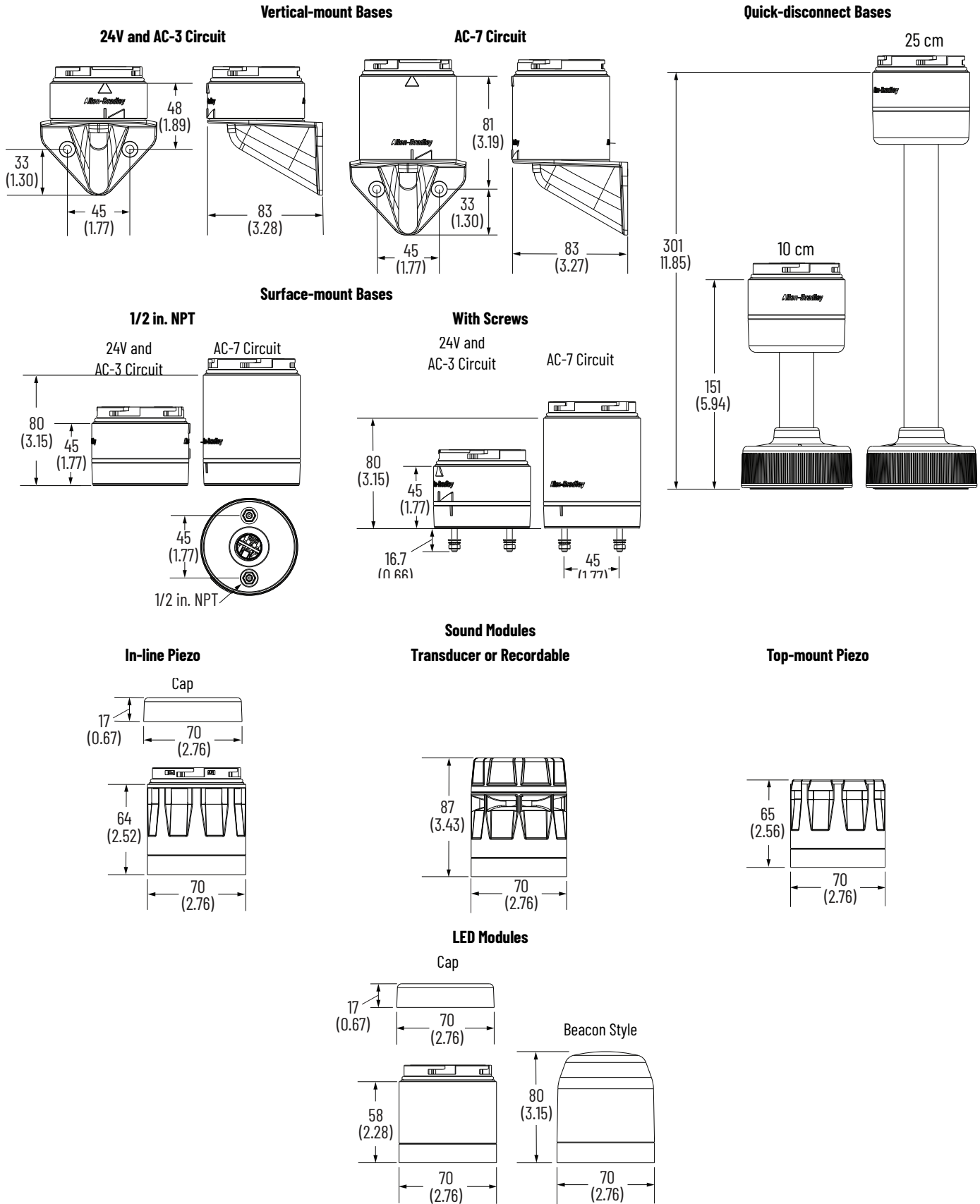


Threaded Tube-mount Bases



Dimensions in millimeters (inches). Dimensions are not intended to be used for manufacturing purposes.

Figure 6 - Component and Accessory Dimensions

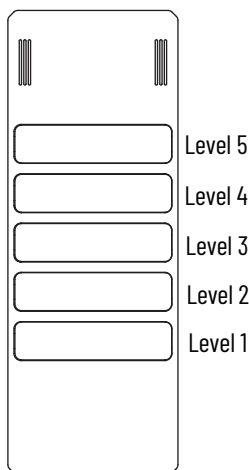


# Bulletin 855W Wall-mount Signal Light

These devices are designed to communicate the status of different conditions in the machine or critical equipment in a compact size housing. Our signal lights are available in configurations from two to five light indicators with the ability to add the sound in the same unit. These devices provide the versatility to meet your application requirements without any mounting orientation restriction. We offer two color enclosures that allow you to choose the one that best fits the aesthetics of your machine or equipment.



## Pre-assembled Wall-mount Signal Lights, 2...5 Light Levels



855W      -      G      10      Y      7      Y      6      Y      3      Y      5      L      4      P1  
                   a                 b                 c                 d     e                 d     e                 d     e                 d     e                 d     e                 f  
   (Level 1, d+e)                           (Level 2, d+e)                           (Level 3, d+e)                           (Level 4, d+e)                           (Level 5, d+e)

<b>a</b>	
<b>Network Option</b>	
<b>Code</b>	<b>Description</b>
Blank	No network option

<b>b</b>	
<b>Housing Color</b>	
<b>Code</b>	<b>Description</b>
C	Chrome plated
G	Gray

<b>c</b>	
<b>Voltage</b>	
<b>Code</b>	<b>Description</b>
24	24V AC/DC
10	120V AC
20	240V AC

<b>d</b>	
<b>Module Type</b>	
<b>Code</b>	<b>Description</b>
Y	Steady LED
L	Flashing LED

<b>e</b>	
<b>Lens Color</b>	
<b>Code</b>	<b>Description</b>
3	Green
4	Red
5	Amber
6	Blue
7	Clear
8	Yellow

<b>f</b>	
<b>Sound</b>	
<b>Code</b>	<b>Description</b>
Blank	No sound
P1	Piezo sounder (continuous/pulsing)

# Specifications

**Table 141 - Environmental**

Attribute		Value
Ingress ratings	Light/sound modules	UL Type 4/4X/13, IP65
Temperature ranges	Operating	-25...+50 °C (-13...+122 °F)
	Storage	-25...+85 °C (-13...+185 °F)

**Table 142 - Materials**

Part	Material
Lenses and base	Polycarbonate (94V-0)
Cover	ABS
Rubber seals and gaskets	NBR 70

**Table 143 - Operating Voltage**

Device	Operating Voltage		
	24V AC/DC	120V AC	240V AC
Light modules and sound modules	24V AC/DC (±10%)	110V AC, 50 Hz (±10%) 120V AC, 60 Hz (±10%)	230V AC, 50 Hz (±10%) 240V AC, 60 Hz (±10%)

**Table 144 - Current Consumption**

Device	Current Consumption [mA]		
	24V AC/DC	120V AC	240V AC
Steady or flashing LED	43 mA per channel, max	33 mA per channel, max	30 mA per channel, max
Piezo sounder	62	24	24

**Table 145 - Leakage Current Impact**

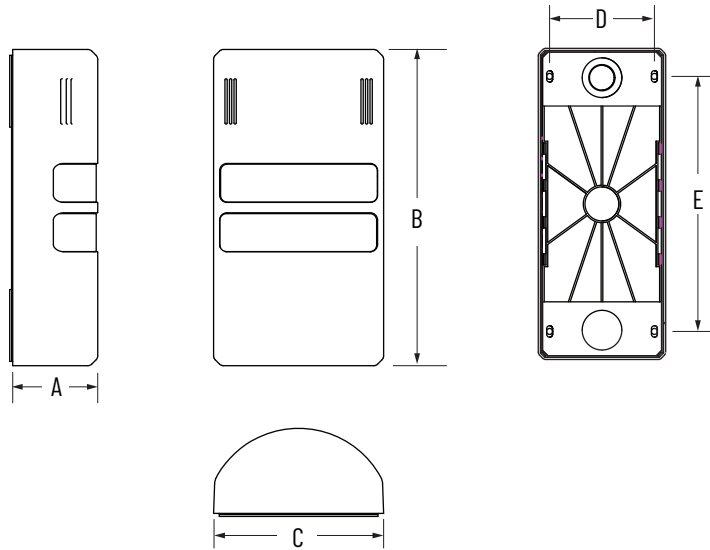
All light and sound modules can absorb up to 3 mA of leakage current from solid-state outputs without module activation.

**Table 146 - Mechanical**

Attribute		Value
Design life rating (average life under static, no vibration conditions)	Steady or flashing LED	30,000...50,000 hr
	Piezo sounder	>10,000 hr
Frequency	Flashing LED	2 Hz
Decibel rating	Piezo sounder	90 dB(A) (potentiometer adjustable down to 70 dB(A)) All dB(A) ratings are determined at a distance of 1 m (3.3 ft) from the sound module

## Approximate Dimensions

Dimensions in millimeters (inches). Dimensions are not intended to be used for manufacturing purposes.



Number of Levels	Dimension A [mm (in.)]	Dimension B [mm (in.)]	Dimension C [mm (in.)]	Dimension D [mm (in.)]	Dimension E [mm (in.)]
2	45 (1.77)	167.4 (6.59)	90 (3.54)	74 (2.91)	125 (4.92)
3		193.5 (7.62)			150 (5.91)
4		219.6 (8.65)			180 (7.09)
5		245.7 (9.67)			210 (8.27)

# Bulletin 855X Hazardous Location Horns, Beacons, and Combination Units

These devices are designed to alert you to critical equipment and system needs on the plant floor. These alarms are available in a wide variety of light and sound functions, sizes, colors, voltages, and mounting options. These devices are also offered pre-assembled to save time.

- Provides low power consumption and long life
- Offers horn only or horn and attached beacon with six lens colors
- Offers 24V DC, 120V AC, and 240V AC voltage options
- Includes glass reinforced plastic and impact resistant ABS enclosure
- Offers -20...+55 °C (-4...+131 °F) operating temperature for Class 1 Division 2
- NEMA Type 4/4X/13, IP 66/67 certified
- UL listed, ATEX/IECEX certified

## Alarm Horn Sounders



855XH - BN D30 B  
                                   a      b      c

a	
Product Type	
Code	Description
BN	1/2 in. NPT and M20x1.5 conduit entrance, black housing

b	
Voltage	
Code	Description
D30	10...30V DC
A10	115...120V AC
A20	220...230V AC

c	
Horn Type	
Code	Description
A	110 dB @ 1 m (3.3 ft), 45 tone, 3 stage
B	117 dB @ 1 m (3.3 ft), 45 tone, 3 stage



# Xenon Strobe Beacons



855XB - BN A10 B 4  
                                   a          b          c          d

a	
Product Type	
Code	Description
BN	1/2 in. NPT and M20x1.5 conduit entrance, black housing

b	
Voltage	
Code	Description
D24	24V DC
A10	115...120V AC
A20	220...230V AC

c	
Beacon Type	
Code	Description
A	Xenon strobe - 5 J, 1 Hz
B	Xenon strobe - 10 J, 1 Hz
L	LED - multifunction

c	
Lens Color	
Code	Description
4	Red
5	Amber
7	Clear

# Combined Horn Sounder and Strobe Beacons



Xenon/Flare



LED/Radial

855XC - BN A10 A 3  
                                   a          b          c          d

a	
Product Type	
Code	Description
BN	1/2 in. NPT and M20x1.5 conduit entrance, black housing

b	
Voltage	
Code	Description
D24	24V DC
A10	115...120V AC
A20	220...230V AC

c	
Horn/Beacon Type	
Code	Description
A	Xenon strobe - 5 J, Flare horn 110 dB @ 1 m (3.3 ft), 45 tones, 3 stages
RL	LED - multifunction Radial horn 110dB @ 1 m (3.3 ft), 45 tones, 3 stages

c	
Lens Color	
Code	Description
4	Red
5	Amber
7	Clear

## Specifications

**Table 147 - Mechanical (Bul. 855XH, 855XB, and 855XC)**

Attribute	Value
Shock	30 G peak
Vibration	2 G peak

**Table 148 - Environmental (Bul. 855XH, 855XB, and 855XC)**

Attribute	Value
Ingress ratings	UL Type 4/4X13, IP 66/67
Temperature ranges	Operating -20...+55 °C (-4...+131 °F)
	Storage -40...+70 °C (-40...+158 °F)
Relative humidity	90% at 20 °C (68 °F)

**Table 149 - Materials (Bul. 855XH, 855XB, and 855XC)**

Part	Value
Housing	PPS: RYTON type R-4 02 XT
Lens	Polycarbonate over glass
Lens cage	Stainless steel 304/A2
Mounting bracket	Stainless steel 304/A3
O-ring	Viton (housing and glass dome)
Horn	Flare Polycarbonate
	Radial Stat-Kon
Screws, washers, and nuts	Stainless steel 302/304
Dome glass	Borosilicate glass
Cemented joint material <sup>(1)</sup>	Moisture-cure silicon adhesive 7091

(1) Horn (855XH) and combo (855XC) only.

**Table 150 - Performance Ratings**

Attribute	855XH <sup>(1)</sup>		855XC
	855XH-BNxxxAy	855XH-BNxxxBy	
Sound output @ 1 m (3.3 ft) <sup>(2)</sup>	110 dB(A)	117 dB(A)	110 dB(A)
Volume control	Adjustable -8 dB		Adjustable -8 dB
Number of tones	45		45
Stages	3		3

(1) Replace the y with color code: Red (4), Amber (5), or Clear (7).

(2) SPL data ±3dB(A). Measured at optimum voltage.

**Table 151 - Light Output**

Attribute	855XB-BNxxxAy 855XC-BNxxxAy (Xenon 5J) <sup>(1)</sup>	855XB-BNxxxBy (Xenon 10J) <sup>(1)</sup>	855XB-BNxxxLy 855XC-BNxxxRLy (LED) <sup>(1)</sup>
Measured ref. to I.E.S. <sup>(2)</sup>	34,122 cd peak 108 cd effective	61,164 cd peak 272 cd effective	87 cd effective (high power steady) 160 cd effective (1 Hz flash)
Calculated from energy [J]	500,000 cd peak 250 cd effective	1,000,000 cd peak 500 cd effective	—

(1) Replace the y with color code: Red (4), Amber (5), or Clear (7).

(2) All candela data is representative of performance with clear lens at optimum voltage

**Table 152 - Beacon Flashing Frequency**

Device <sup>(1)</sup>	Flashing Frequency
855XB-BNxxxAy 855XC-BNxxxAy	1 Hz
855XB-BNxxxBy	1 Hz
855XB-BND24Ly 855XC-BND24Ly	High: Steady, 1 Hz, 2 Hz, 2X, 3X, 80FPM Low: Steady (S1) + 1 Hz flashing (S2) + 3X (S3)
855XB-BNA10Ly 855XC-BNA10Ly	High: Steady, 1 Hz, 2 Hz, 2X, 3X, 80FPM Low: Steady
855XB-BNA20Ly 855XC-BNA20Ly	High: Steady, 1 Hz, 2 Hz, 2X, 3X, 80FPM Low: Steady

(1) Replace the y with color code: Red (4), Amber (5), or Clear (7).

**Table 153 - Operating Voltage and Current Consumption**

Cat. No. <sup>(1)</sup>	Operating Voltage	Current Consumption, Nom	Inrush Current	Leakage Immunity
855XH-BND30A	10...30V DC	284 mA	16.79 A @ 0.29 ms	>3mA
855XH-BNA10A	115V AC 50/60Hz ±10%	104 mA	1.235 A @ 6.72 ms	>3 mA
855XH-BNA20A	230V AC 50/60Hz ±10%	54 mA	1.413 A @ 0.576 ms	>3mA
855XH-BND30B	10...30V DC	280 mA	13.53 A @ 0.19 ms	>3 mA
855XH-BNA10B	115V AC 50/60Hz ±10%	142 mA	1.405 A @ 4.03 ms	>3 mA
855XH-BNA20B	230V AC 50/60Hz ±10%	76 mA	1.722 A @ 0.96 ms	>3 mA
855XB-BND24Ay	20...28V DC	275 mA	6.40 A @ 1.15 ms	>3 mA
855XB-BNA10Ay	115V AC 50/60Hz ±10%	80 mA	963 mA @ 3.07 ms	>3 mA
855XB-BNA20Ay	230V AC 50/60Hz ±10%	30 mA	630 mA @ 0.58 ms	>3 mA
855XB-BND24By	20...28V DC	560 mA	6.71 A @ 0.77 ms	>3 mA
855XB-BNA10By	115V AC 50/60Hz ±10%	185 mA	739 mA @ 3.07 ms	>3 mA
855XB-BNA20By	230V AC 50/60Hz ±10%	107 mA	993 mA @ 1.15 ms	>3 mA
855XB-BND24Ly	18...54V DC	240 mA (Steady high power) 134 mA (Steady low power) 110 mA (1Hz Flashing)	1.9A @ 1.6 ms	>3 mA
855XB-BNA10Ly	103.5...126.5V AC 50/60 Hz	95 mA (Steady high power) 78 mA (Steady low power) 90 mA (1Hz Flashing)	1.04 A @ 11.1ms	>3mA (horn) 3 mA @ <13V AC (LED)
855XB-BNA20Ly	207...253V AC 50/60 Hz	48 mA (Steady high power) 37 mA (Steady low power) 45 mA (1Hz Flashing)	0.61 A @ 11.5ms	>3mA (horn) 3 mA @ <40V AC (LED)
855XC-BND24Ay	10...30V DC Horn 20...28V DC Beacon	284 mA Horn 275 mA Beacon	16.79 A @ 0.29 ms (horn) 6.40 A @ 1.15 ms (beacon)	>3 mA
855XC-BNA10Ay	115V AC 50/60Hz ±10%	104 mA Horn 80 mA Beacon	1.235 A @ 6.72 ms (horn) 963 mA @ 3.07 ms (beacon)	>3 mA
855XC-BNA20Ay	230V AC 50/60Hz ±10%	54 mA Horn 30 mA Beacon	1.413 A @ 0.576 ms (horn) 630 mA @ 0.58 ms (beacon)	>3 mA
855XC-BND24RLy	24V DC ±25% Horn 18...54V DC Beacon	265 mA Horn 240 mA (LED-Steady high power) 134 mA (LED-Steady low power) 110 mA (LED-1Hz Flashing)	16.79 A @ 0.29 ms (horn) 1.9 A @ 1.6 ms (beacon)	>3 mA
855XC-BNA10RLy	115V AC 50/60Hz ±10%	110 mA Horn 95 mA (LED-Steady high power) 78 mA (LED-Steady low power) 90 mA (LED-1Hz Flashing)	1.235 A @ 6.72 ms (horn) 1.04 A @ 11.1 ms (beacon)	3 mA @ <13V AC
855XC-BNA20RLy	230V AC 50/60Hz ±10%	56 mA horn 48 mA (LED-Steady high power) 37 mA (LED-Steady low power) 45 mA (LED-1Hz Flashing)	1.413 A @ 0.576 ms (horn) 0.61 A @ 11.5 ms (beacon)	3 mA @ <40V AC

(1) Replace the y with color code: Red (4), Amber (5), or Clear (7).

**Table 154 - Wiring**

Haz Loc Device <sup>(1)</sup>	Tightening Torque [N·m (lb·in)]	Wire Strip Length [mm (in.)]	Wire Cross Section	AWG (Solid/Stranded)	Voltage Rating	Temperature
855XH-BNxxxA	0.45 (4)	8 (0.31)	0.2...4.0 mm <sup>2</sup>	12...30	300V	-30...+105 °C (-22...+221 °F)
855XH-BNxxxB						
855XC-BNxxxAy (beacon PCB)	0.56 (5)	7...8 (0.28...0.31)		12...24		-40...+115 °C (-40...+239 °F)
855XC-BNxxxAy (horn PCB)						
855XC-BNxxxRLy (beacon PCB)	0.56 (5)	7...8 (0.28...0.31)		12...24		-40...+115 °C (-40...+239 °F)
855XC-BNxxxRLy (horn PCB)						
855XB-BNxxxAy	0.56 (5)	7...8 (0.28...0.31)		12...24		-40...+115 °C (-40...+239 °F)
855XB-BNxxxBy						
855XB-BNxxxRLy						

(1) Replace the y with color code: Red (4), Amber (5), or Clear (7).

Table 155 - Hazardous Location Certifications

Cat. No.	Description	ATEX/IECEx	NEC Class/Zone	CEC Class/Zone	Class/Div
855XH-BND30A 855XH-BNA10A 855XH-BNA20A	Flare 110dB	<ul style="list-style-type: none"> <li>II 3G Ex nA IIC T4 Gc Ta -20...+55 °C (-4...+131 °F)</li> <li>II 3D Ex tc IIIC T85 °C Dc Ta -20...+55 °C (-4...+131 °F)</li> </ul>	<ul style="list-style-type: none"> <li>Class I Zone 2 AEx nA IIC T4 Gc Ta -20...+55 °C (-4...+131 °F)</li> <li>Zone 22 AEx tc IIIC T85 °C Dc Ta -20...+55 °C (-4...+131 °F)</li> </ul>	<ul style="list-style-type: none"> <li>Ex nA IIC T4 Gc Ta -20...+55 °C (-4...+131 °F)</li> <li>Ex tc IIIC T85 °C Dc Ta -20...+55 °C (-4...+131 °F)</li> </ul>	<ul style="list-style-type: none"> <li>Class I, Div 2, ABCD T3C Ta -20...+55 °C (-4...+131 °F)</li> <li>Class I, Div 2, ABCD T4 Ta -20...+40 °C (-4...+104 °F)</li> <li>Class II, Div 2, FG T6 Ta -20...+55 °C (-4...+131 °F)</li> <li>Class III T6 Ta -20...+55 °C (-4...+131 °F)</li> </ul>
855XH-BND30B 855XH-BNA10B 855XH-BNA20B	Flare 117dB	<ul style="list-style-type: none"> <li>II 3G Ex nA IIC T4 Gc Ta -20...+55 °C (-4...+131 °F)</li> <li>II 3D Ex tc IIIC T85 °C Dc Ta -20...+55 °C (-4...+131 °F)</li> </ul>	<ul style="list-style-type: none"> <li>Class I Zone 2 AEx nA IIC T4 Gc Ta -20...+55 °C (-4...+131 °F)</li> <li>Zone 22 AEx tc IIIC T85 °C Dc Ta -20...+55 °C (-4...+131 °F)</li> </ul>	<ul style="list-style-type: none"> <li>Ex nA IIC T4 Gc Ta -20...+55 °C (-4...+131 °F)</li> <li>Ex tc IIIC T85 °C Dc Ta -20...+55 °C (-4...+131 °F)</li> </ul>	<ul style="list-style-type: none"> <li>Class I, Div 2, ABCD T3C Ta -20...+55 °C (-4...+131 °F)</li> <li>Class I, Div 2, ABCD T4 Ta -20...+40 °C (-4...+104 °F)</li> <li>Class II, Div 2, FG T6 Ta -20...+55 °C (-4...+131 °F)</li> <li>Class III Ta -20...+55 °C (-4...+131 °F)</li> </ul>
855XB-BND24A* 855XB-BNA10A* 855XB-BNA20A*	Xenon 5J beacon	<ul style="list-style-type: none"> <li>II 3G Ex nA IIC T3 Gc Ta -20...+40 °C (-4...+104 °F)</li> <li>II 3G Ex nA IIC T2 Gc Ta -20...+55 °C (-4...+131 °F)</li> <li>II 3D Ex tc IIIC 85 °C Dc Ta -20...+40 °C (-4...+104 °F)</li> <li>II 3D Ex tc IIIC 100 °C Dc Ta -20...+55 °C (-4...+131 °F)</li> </ul>	<ul style="list-style-type: none"> <li>Class I Zone 2 AEx nA IIC T3 Gc Ta -20...+40 °C (-4...+104 °F)</li> <li>Class I Zone 2 AEx nA IIC T2 Gc Ta -20...+55 °C (-4...+131 °F)</li> <li>Zone 22 AEx tc IIIC 85 °C Dc Ta -20...+40 °C (-4...+104 °F)</li> <li>Zone 22 AEx tc IIIC 100 °C Dc Ta -20...+55 °C (-4...+131 °F)</li> </ul>	<ul style="list-style-type: none"> <li>Class I Zone 2 Ex nA IIC T3 Gc Ta -20...+40 °C (-4...+104 °F)</li> <li>Class I Zone 2 Ex nA IIC T2 Gc Ta -20...+55 °C (-4...+131 °F)</li> <li>Zone 22 Ex tc IIIC 85 °C Dc Ta -20...+40 °C (-4...+104 °F)</li> <li>Zone 22 Ex tc IIIC 100 °C Dc Ta -20...+55 °C (-4...+131 °F)</li> </ul>	<ul style="list-style-type: none"> <li>Class I, Div 2, ABCD T2D Ta -20...+55 °C (-4...+131 °F)</li> <li>Class I, Div 2, ABCD T3 Ta -20...+40 °C (-4...+104 °F)</li> <li>Class II, Div 2, FG T5 Ta -20...+55 °C (-4...+131 °F)</li> <li>Class II, Div 2, FG T6 Ta -20...+40 °C (-4...+104 °F)</li> <li>Class III Ta -20...+55 °C (-4...+131 °F)</li> </ul>
855XB-BND24B* 855XB-BNA10B* 855XB-BNA20B*	Xenon 10J beacon	<ul style="list-style-type: none"> <li>II 3G Ex nA IIC T2 Gc Ta -20...+55 °C (-4...+131 °F)</li> <li>II 3D Ex tc IIIC 105 °C Dc Ta -20...+40 °C (-4...+104 °F)</li> <li>II 3D Ex tc IIIC 120 °C Dc Ta -20...+55 °C (-4...+131 °F)</li> </ul>	<ul style="list-style-type: none"> <li>Class I Zone 2 AEx nA IIC T2 Gc Ta -20...+55 °C (-4...+131 °F)</li> <li>Zone 22 AEx tc IIIC 105 °C Dc Ta -20...+40 °C (-4...+104 °F)</li> <li>Zone 22 AEx tc IIIC 120 °C Dc Ta -20...+55 °C (-4...+131 °F)</li> </ul>	<ul style="list-style-type: none"> <li>Class I Zone 2 Ex nA IIC T2 Gc Ta -20...+55 °C (-4...+131 °F)</li> <li>Class I Zone 2 Ex nA IIC T2 Gc Ta -20...+55 °C (-4...+131 °F)</li> <li>Zone 22 Ex tc IIIC 105 °C Dc Ta -20...+40 °C (-4...+104 °F)</li> </ul>	<ul style="list-style-type: none"> <li>Class I, Div 2, ABCD T2C Ta -20...+55 °C (-4...+131 °F)</li> <li>Class I, Div 2, ABCD T2D Ta -20...+40 °C (-4...+104 °F)</li> <li>Class II, Div 2, FG T5 Ta -20...+55 °C (-4...+131 °F)</li> <li>Class II, Div 2, FG T6 Ta -20...+40 °C (-4...+104 °F)</li> <li>Class III Ta -20...+55 °C (-4...+131 °F)</li> </ul>
855XC-BND24A* 855XC-BNA10A* 855XC-BNA20A*	Combo-flare with 5J xenon	<ul style="list-style-type: none"> <li>II 3G Ex nA IIC T3 Gc Ta -20...+40 °C (-4...+104 °F)</li> <li>II 3G Ex nA IIC T2 Gc Ta -20...+55 °C (-4...+131 °F)</li> <li>II 3D Ex tc IIIC 85 °C Dc Ta -20...+40 °C (-4...+104 °F)</li> <li>II 3D Ex tc IIIC 100 °C Dc Ta -20...+55 °C (-4...+131 °F)</li> </ul>	<ul style="list-style-type: none"> <li>Class I Zone 2 AEx nA IIC T3 Gc Ta -20...+40 °C (-4...+104 °F)</li> <li>Class I Zone 2 AEx nA IIC T2 Gc Ta -20...+55 °C (-4...+131 °F)</li> <li>Zone 22 AEx tc IIIC 85 °C Dc Ta -20...+40 °C (-4...+104 °F)</li> <li>Zone 22 AEx tc IIIC 100 °C Dc Ta -20...+55 °C (-4...+131 °F)</li> </ul>	<ul style="list-style-type: none"> <li>Ex nA IIC T3 Gc Ta -20...+40 °C (-4...+104 °F)</li> <li>Ex nA IIC T2 Gc Ta -20...+55 °C (-4...+131 °F)</li> <li>Ex tc IIIC 85 °C Dc Ta -20...+40 °C (-4...+104 °F)</li> <li>Ex tc IIIC 100 °C Dc Ta -20...+55 °C (-4...+131 °F)</li> </ul>	<ul style="list-style-type: none"> <li>Class I, Div 2, ABCD T2D Ta -20...+55 °C (-4...+131 °F)</li> <li>Class I, Div 2, ABCD T3 Ta -20...+40 °C (-4...+104 °F)</li> <li>Class II, Div 2, FG T5 Ta -20...+55 °C (-4...+131 °F)</li> <li>Class II, Div 2, FG T6 Ta -20...+40 °C (-4...+104 °F)</li> <li>Class III, Div 1&amp;2 Ta -20...+55 °C (-4...+131 °F)</li> </ul>
855XB-BND24L* 855XB-BNA10L* 855XB-BNA20L*	LED beacon	<ul style="list-style-type: none"> <li>II 3G Ex nA IIC Gc T4 Ta -20...+55 °C (-4...+131 °F)</li> <li>II 3D Ex tb IIIC Dc T85 °C Ta -20...+55 °C (-4...+131 °F)</li> </ul>	<ul style="list-style-type: none"> <li>Class I Zone 2 AEx nA IIC Gc T4 Ta -20...+55 °C (-4...+131 °F)</li> <li>Zone 22 AEx tb IIIC Dc T85 °C Ta -20...+55 °C (-4...+131 °F)</li> </ul>	<ul style="list-style-type: none"> <li>Ex nA IIC Gc T4 Ta -20...+55 °C (-4...+131 °F)</li> <li>Ex nA IIC Gc T4A Ta -20...+40 °C (-4...+104 °F)</li> <li>Ex tb IIIC Dc T85 °C Ta -20...+55 °C (-4...+131 °F)</li> </ul>	<ul style="list-style-type: none"> <li>Class I, Div 2, ABCD T4A Ta -20...+55 °C (-4...+131 °F)</li> <li>Class II, Div 2, FG T6 Ta -20...+40 °C (-4...+104 °F)</li> <li>Class III, Div 1&amp;2 Ta -20...+55 °C (-4...+131 °F)</li> </ul>
855XC-BND24RL* 855XC-BNA10RL* 855XC-BNA20RL*	Combo-radial with LED	<ul style="list-style-type: none"> <li>II 3G Ex nA IIC Gc T3 Ta -20...+55 °C (-4...+131 °F)</li> <li>II 3D Ex tc IIIC Dc T105 °C Ta -20...+55 °C (-4...+131 °F)</li> <li>II 3D Ex tc IIIC Dc T90 °C Ta -20...+40 °C (-4...+104 °F)</li> </ul>	<ul style="list-style-type: none"> <li>Class I Zone 2 AEx nA IIC Gc T3 Ta -20...+55 °C (-4...+131 °F)</li> <li>Zone 22 AEx tc IIIC Dc T105 °C Ta -20...+55 °C (-4...+131 °F)</li> <li>Zone 22 AEx tc IIIC Dc T90 °C Ta -20...+40 °C (-4...+104 °F)</li> </ul>	<ul style="list-style-type: none"> <li>Ex nA IIC Gc T3B Ta -20...+55 °C (-4...+131 °F)</li> <li>Ex nA IIC Gc T3C Ta -20...+40 °C (-4...+104 °F)</li> <li>Ex tc IIIC Dc T105 °C Ta -20...+55 °C (-4...+131 °F)</li> <li>Ex tc IIIC Dc T90 °C Ta -20...+40 °C (-4...+104 °F)</li> </ul>	<ul style="list-style-type: none"> <li>Class I, Div 2, ABCD T3C Ta -20...+55 °C (-4...+131 °F)</li> <li>Class II, Div 2, FG T4A Ta -20...+55 °C (-4...+131 °F)</li> <li>Class II, Div 2, FG T5 Ta -20...+40 °C (-4...+104 °F)</li> <li>Class III, Div 1&amp;2 Ta -20...+55 °C (-4...+131 °F)</li> </ul>

Table 156 - Standards and Certifications

Standards Compliance	Certifications
<ul style="list-style-type: none"> <li>UL 508</li> <li>UL 1604</li> <li>CSA C22.2 No. 14</li> <li>CSA C22.2 No. 213</li> <li>EN/IEC 60947-1</li> <li>EN/IEC 60947-5-1</li> </ul>	<ul style="list-style-type: none"> <li>CE Marked</li> <li>cULus Listed (File No. E305538 for Beacons and File No. E305533 for Horns and Combination units) for Class I, Division 2, Groups A, B, C, and D; Class II, Division 2, Groups F &amp; G, and Class III, Division 1 &amp; 2</li> </ul>

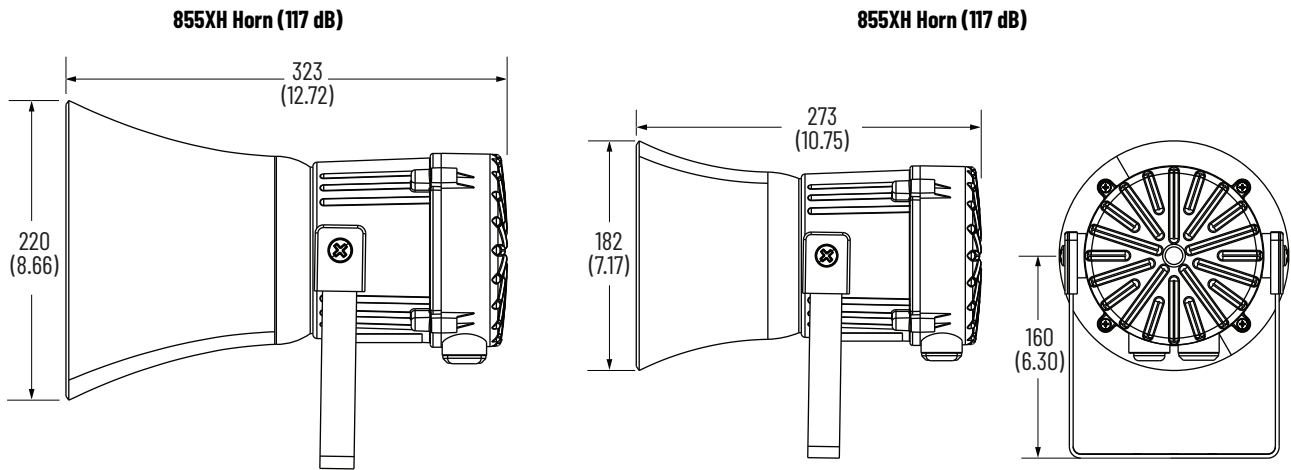
## Tone Selection Table for 855XH and 855XC Units

Stage 1	Frequency Description	Switch						Stage 2	Stage 3
		1	2	3	4	5	6		
1	340 Hz, Continuous	0	0	0	0	0	0	Tone 2	Tone 5
2	800/1000 Hz @ 0.25 s, Alternating	1	0	0	0	0	0	Tone 17	Tone 5
3	500/1200 Hz @ 0.3 Hz s, Slow Whoop	0	1	0	0	0	0	Tone 2	Tone 5
4	800/1000 Hz @ 1 Hz, Sweeping	1	1	0	0	0	0	Tone 6	Tone 5
5	2400 Hz, Continuous	0	0	1	0	0	0	Tone 3	Tone 20
6	2400/2900 Hz @ 7 Hz, Sweeping	1	0	1	0	0	0	Tone 7	Tone 5
7	2400/2900 Hz @ 1 Hz, Sweeping	0	1	1	0	0	0	Tone 10	Tone 5
8	500/1200/500 Hz @ 0.3 Hz, Sweeping	1	1	1	0	0	0	Tone 2	Tone 5
9	1200/500 Hz @ 1 Hz, - DIN PFEER P.T.A.P.	0	0	0	1	0	0	Tone 15	Tone 2
10	2400/2900 Hz @ 2 Hz, Alternating	1	0	0	1	0	0	Tone 7	Tone 5
11	1000 Hz @ 1 Hz, Intermittent	0	1	0	1	0	0	Tone 2	Tone 5
12	800/1000 Hz @ 0.875 Hz, Alternating	1	1	0	1	0	0	Tone 4	Tone 5
13	2400 Hz @ 1 Hz, Intermittent	0	0	1	1	0	0	Tone 15	Tone 5
14	800 Hz, 0.25 s ON, 1 s OFF, Intermittent	1	0	1	1	0	0	Tone 4	Tone 5
15	800 Hz, Continuous	0	1	1	1	0	0	Tone 18	Tone 5
16	660 Hz, 150 ms ON, 150 ms OFF, Intermittent	1	1	1	1	0	0	Tone 2	Tone 27
17	544 Hz (100 ms)/440 Hz (400 ms), - NF S 32-001	0	0	0	0	1	0	Tone 2	Tone 5
18	660 Hz, 1.8 s ON, 1.8 s OFF, Intermittent	1	0	0	0	1	0	Tone 2	Tone 5
19	1.4 kHz...1.6 kHz 1 s, 1.6 kHz...1.4 kHz 0.5 s, - NFC48-265	0	1	0	0	1	0	Tone 2	Tone 5
20	660 Hz, Continuous	1	1	0	0	1	0	Tone 2	Tone 5
21	554 Hz/440 Hz @ 1 Hz, Alternating	0	0	1	0	1	0	Tone 2	Tone 5
22	544 Hz @ 0.875 s, Intermittent	1	0	1	0	1	0	Tone 2	Tone 5
23	800 Hz @ 2 Hz, Intermittent	0	1	1	0	1	0	Tone 6	Tone 5
24	800/1000 Hz @ 50 Hz, Sweeping	1	1	1	0	1	0	Tone 29	Tone 5
25	2400/2900 Hz @ 50 Hz, Sweeping	0	0	0	1	1	0	Tone 29	Tone 5
26	Bell	1	0	0	1	1	0	Tone 2	Tone 15
27	554 Hz, Continuous	0	1	0	1	1	0	Tone 26	Tone 5
28	440 Hz, Continuous	1	1	0	1	1	0	Tone 2	Tone 5
29	800/1000 Hz @ 7 Hz, Sweeping	0	0	1	1	1	0	Tone 7	Tone 5
30	300 Hz, Continuous	1	0	1	1	1	0	Tone 2	Tone 5
31	660/1200 Hz @ 1 Hz, Sweeping	0	1	1	1	1	0	Tone 26	Tone 5
32	Two-tone chime	1	1	1	1	1	0	Tone 26	Tone 15
33	745 Hz @ 1 Hz, Intermittent	0	0	0	0	0	1	Tone 2	Tone 5
34	1000 Hz & 2000 Hz @ 0.5 s, Alternating - Singapore	1	0	0	0	0	1	Tone 38	Tone 45
35	420 Hz @ 0.625 s, Australian Alert	0	1	0	0	0	1	Tone 36	Tone 5
36	500...1200 Hz 3.75 s/0.25 s, Australian Evac.	1	1	0	0	0	1	Tone 35	Tone 5
37	1000 Hz, Continuous, - PFEER Toxic Gas	0	0	1	0	0	1	Tone 9	Tone 45
38	2000 Hz, Continuous	1	0	1	0	0	1	Tone 34	Tone 45
39	800 Hz 0.25 s ON, 1 sec OFF, Intermittent	0	1	1	0	0	1	Tone 23	Tone 17
40	544 Hz (100 ms)/440 Hz (400 ms), - NF S 32-001	1	1	1	0	0	1	Tone 31	Tone 27
41	Motor Siren - slow rise to 1200 Hz	0	0	0	1	0	1	Tone 2	Tone 5
42	Motor Siren - slow rise to 800 Hz	1	0	0	1	0	1	Tone 2	Tone 5
43	1200 Hz, Continuous	0	1	0	1	0	1	Tone 2	Tone 5
44	Motor Siren - slow rise to 2400 Hz	1	1	0	1	0	1	Tone 2	Tone 5
45	1 kHz 1 s ON, 1 s OFF, Intermittent, - PFEER Gen. Alarm	0	0	1	1	0	1	Tone 38	Tone 34

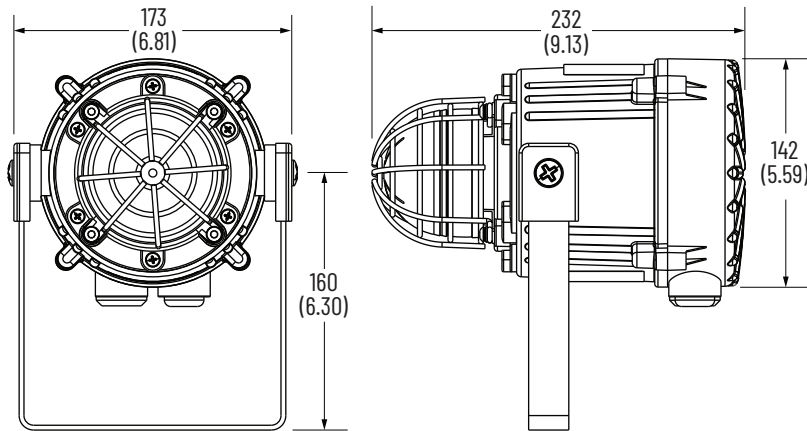
# Approximate Dimensions

Dimensions in millimeters (inches). Dimensions are not intended to be used for manufacturing purposes.

**Figure 7 - Bulletin 855XH Horns**

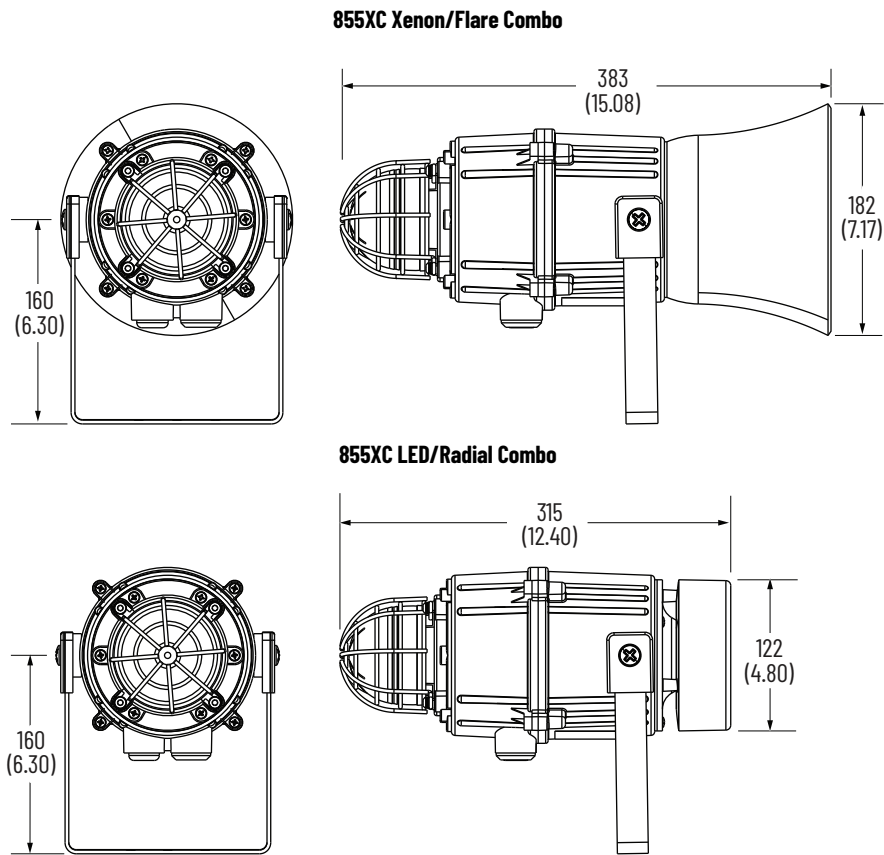


**Figure 8 - Bulletin 855XB Beacons**



Dimensions in millimeters (inches). Dimensions are not intended to be used for manufacturing purposes.

Figure 9 - Bulletin 855XC Combo Horn/Beacon

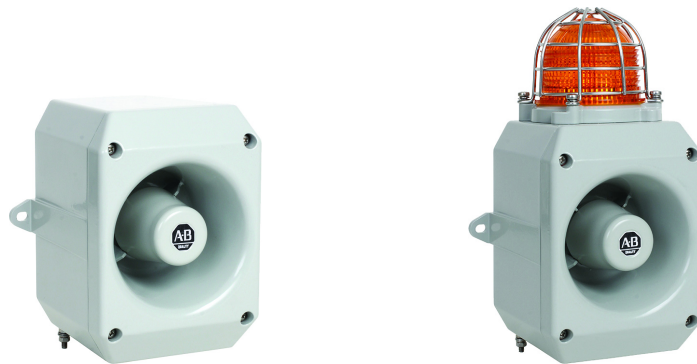


# Bulletin 855XM Hazardous Location Metal Horns

These devices are designed to alert you to critical equipment and system needs on the plant floor. These alarms are available in a wide variety of light and sound functions, sizes, colors, voltages, and mounting options. These devices are also offered pre-assembled to save time.

- Provides low power consumption and long-life
- Offers horn only or horn and attached beacon with six lens colors
- Offers 24V DC, 120V AC, and 240V AC voltage options
- Includes marine-grade aluminum enclosure with a compact footprint
- Offers -40...+70 °C (-40...+158 °F) operating temperature for Class 1 Division 2
- NEMA Type 4/4X/13, IP66 certified
- ATEX/IECEX, Zone 2 and Zone 22
- Class 1 Zone 2; Class 1 Zone 22

## Alarm Horn Sounders



855XM - C G M D24 D A 4  
a b c d e f g

a	
Product Type	
Code	Description
H	Horn only
C	Horn with attached xenon strobe

b	
Housing Color	
Code	Description
G	Gray

c	
Conduit Entry	
Code	Description
M	Two M20 x 1.5 mm conduit entries

d	
Voltage	
Code	Description
D24	20...28V DC <sup>(3)</sup>
D30	10...30V DC <sup>(4)</sup>
A10	115...125V AC 60 Hz
A20	215...250V AC 50 Hz

e	
Horn Type	
Code	Description
D	116 dB (A) @ 1 m (3.3 ft), 64 tones, 4 stages


f	
Beacon Type <sup>(1)</sup> <sup>(2)</sup>	
Code	Description
Blank	No light
A	5 J, strobe
B	10 J, strobe

g	
Lens Color <sup>(1)</sup> <sup>(2)</sup>	
Code	Description
Blank	No light
4	Red
5	Amber
7	Clear

- (1) Beacon type and lens color must be Blank for Cat. No. 855XM-H.  
 (2) Beacon type and lens color cannot be Blank for Cat. No. 855XM-C.  
 (3) Voltage code D24 only valid with beacon code A and B (Table f).  
 (4) Voltage code D30 not valid with beacon code A and B (Table f).



## Accessories

	Plastic Lens Insert Color	Cat. No.
	Green	855XM-ABL3
	Red	855XM-ABL4
	Amber	855XM-ABL5
	Blue	855XM-ABL6
	Clear	855XM-ABL7
	Yellow	855XM-ABL8

## Specifications

**IMPORTANT** The maximum shock and vibration standards for the 855H horn in [Table 157](#) are reference guidelines.

**Table 157 - Mechanical**

Device	Shock [G]	Vibration [G]
Metal horn	40	3
Metal horn with attached beacon	30	3

**Table 158 - Environmental**

Attribute	Device	Value
Ingress rating	Horn and horn with attached beacon	UL Type 4/4X/13/3R, IP66
Temperature ranges	Operating	Electronic horn: -40...+50°C (-40...+122 °F) <sup>(1)</sup> Horn with attached beacon: -40...+50 °C (-40...+122 °F)
	Storage	Electronic horn and horn with attached beacon: -40...+70 °C (-40...+158 °F)

(1) -40...+158 °F (-40...+70 °C) for Class 1/Div.2

**Table 159 - Materials**

Part	Material
Housing (gray powder coat)	Marine grade aluminum (Al Si12 Cu)
Screws	Stainless steel
Beacon lens	Polycarbonate over glass
Lens cage	Stainless steel
Gasket (cover to base)	O-ring Fluorosilicone UL
Gasket (screw mounting hole)	Fiber washer

**Table 160 - Performance Ratings**

Device	Sound Output @ 1 m (3.3 ft) <sup>(1)</sup>	Volume Control	No. of Tones	Stages
Metal horn	116 dB(A), max	Adjustable -12 dB(A)	64	4
	<b>Light Output (Xenon Strobe Beacon- 5 J)</b>		<b>Light Output (Xenon Strobe Beacon- 10 J)</b>	
Red LED beacon	14.6 cd eff/120,000 cd peak		42.83 cd eff/240,000 cd peak	
Amber LED beacon	45.8 cd eff/350,000 cd peak		130.9 cd eff/700,000 cd peak	
Clear LED beacon	80.6 cd eff/500,000 cd peak		243.1 cd eff/1,000,000 cd peak	

(1) SPL data ±3 dB(A). Measured at optimum voltage.

**Table 161 - Operating Voltage and Current Consumption**

Device	Operating Voltage	Nominal Maximum	Inrush	Leakage Immunity
<b>Horns</b>				
855XM-HGMD30D	10...30V DC	160 mA @ 12V DC	611 mA, 11 ms	>3 mA
		313 mA @ 24V DC	1809 mA, 9 ms	
		225 mA @ 30V DC	2483 mA, 7 ms @ 30V DC	
855XM-HGMA10D	115V AC 60 Hz ±10%	89 mA @ 115V AC 60 Hz	710 mA, 8 ms	
855XM-HGMA20D	230V AC 50 Hz ±10%	52 mA @ 230V AC 60 Hz	350 mA, 7 ms	
<b>Horns with Beacon</b>				
855XM-CGMD24Dax	20...28V DC	513 mA @ 24V DC (5 J)	1932 mA, 10 ms	>3 mA
855XM-CGMD24DBx	20...28V DC	876 mA @ 24V DC (10 J)	2074 mA, 11 ms	
855XM-CGMA10Dax	115...125V AC, 60 Hz	174 mA @ 115V AC (5 J)	975 mA, 3 ms	
855XM-CGMA10DBx	115...125V AC, 60 Hz	320 mA @ 115V AC (10 J)	1031 mA, 3 ms	
855XM-CGMA20Dax	215...250V AC, 50 Hz	63 mA @ 230V ACDC (5 J)	1607 mA, 3 ms	
855XM-CGMA20DBx	215...250V AC, 50 Hz	100 mA @ 230V AC (10 J)	1628 mA, 3 ms	

**Table 162 - Flashing Frequency**

Device	Frequency
Horns with strobe	1 Hz

**Table 163 - Miscellaneous**

Attribute	Value
Cable entry	Two M20x 1.5 mm threaded holes
Terminal blocks	0.5...2.5 mm <sup>2</sup> (20...14 AWG)
Grounding stud	M5

**Table 164 - ATEX/IECEX Certification**

Zone	Group	Temperature Code
<b>855XM Hazardous Location Metal Horn</b>		
Zone 2	Group IIA (propane) Group IIB (ethylene) Group IIC (hydrogen/acetylene)	T1 (450 °C [842 °F]) T2 (300 °C [572 °F]) T3 (200 °C [392 °F]) T4 (135 °C [275 °F])
Zone 22 <sup>(1)</sup>	Group IIIA (combustible flyings) Group IIIB (non-conductive dust) Group IIIC (conductive dust)	—
<b>855XM-C Hazardous Location Metal Horn with Strobe</b>		
Zone 2	Group IIA (propane) Group IIB (ethylene) Group IIC (hydrogen/acetylene)	T1 (450 °C [842 °F]) T2 (300 °C [572 °F])
Zone 22 <sup>(2)</sup>	Group IIIA (combustible flyings) Group IIIB (non-conductive dust) Group IIIC (conductive dust)	—

(1) Maximum surface temperature for dust applications is 90 °C (194 °F).

(2) Maximum surface temperature for dust applications is 90 °C (194 °F) for Cat. No. 855XM-CGM\_DA\* and 110 °C (230 °F) for Cat. No. 855XM-CGM\_DB\*.

**Table 165 - Class/Zone Ratings – US**

Device	Rating
Horn	<ul style="list-style-type: none"> <li>Class I, Zone 2 AEx nA IIC T4 Gc (Ta -40...+50 °C [-40...+122 °F])</li> <li>Class I, Zone 22 AEx tc IIIC T90 °C Dc (Ta -40...+50 °C [-40...+122 °F])</li> </ul>
Horn with 5 J strobe	<ul style="list-style-type: none"> <li>Class I, Zone 2 AEx nA IIC T2 Gc (Ta -40...+50 °C [-40...+122 °F])</li> <li>Class I, Zone 22 AEx tc IIIC 120 °C Dc (Ta -40...+50 °C [-40...+122 °F])</li> </ul>
Horn with 10 J strobe	<ul style="list-style-type: none"> <li>Class I, Zone 2 AEx nA IIC T1 Gc (Ta -40...+50 °C [-40...+122 °F])</li> <li>Class I, Zone 2 AEx nA IIC T2 Gc for (Ta -40...+40 °C [-40...+104 °F])</li> <li>Class I, Zone 22 AEx tc IIIC 120 °C Dc (Ta -40...+50 °C [-40...+122 °F])</li> </ul>

All horns (with and without strobe) comply with the following:

- ANSI/UL 60079-0-2013
- ANSI/UL 60079-15-2013
- ISA60079-31-2013

**Table 166 - Class/Zone Ratings – Canada**

Device	Rating
Horn	<ul style="list-style-type: none"> <li>• Ex nA IIC T4 Gc X (Ta -40...+50 °C [-40...+122 °F])</li> <li>• Ex tc IIIC T90 °C Dc (Ta -40...+50 °C [-40...+122 °F])</li> <li>• Class II Div 2 FG T5 (Ta -40...+50 °C [-40...+122 °F])</li> </ul>
Horn with 5 J strobe	<ul style="list-style-type: none"> <li>• Ex nA IIC T2B Gc X (Ta -40...+50 °C [-40...+122 °F])</li> <li>• Ex nA IIC T2C Gc X (Ta -40...+45 °C [-40...+113 °F])</li> <li>• Ex tc IIIC T120 °C Dc (Ta -40...+50 °C [-40...+122 °F])</li> <li>• Class II, Div 2 FG T4A (Ta -40...+50 °C [-40...+122 °F])</li> </ul>
Horn with 10 J strobe	<ul style="list-style-type: none"> <li>• Ex nA IIC T1 Gc X (Ta -40...+50 °C [-40...+122 °F])</li> <li>• Ex nA IIC T2 Gc X (Ta -40...+40 °C [-40...+104 °F])</li> <li>• Ex tc IIIC T120 °C Dc (Ta -40...+50 °C [-40...+122 °F])</li> <li>• Class II, Div 2 FG T4A (Ta -40...+50 °C [-40...+122 °F])</li> </ul>

All horns (with and without strobe) comply with the following:

- CAN/CSA C22.2 No. 60079-0:11
- CAN/CSA C22.2 No. 60079-15:12
- CAN/CSA C22.2 No. 60079-31:12

**Table 167 - Class/Division Ratings – US and Canada**

Device	Rating
Horn	<ul style="list-style-type: none"> <li>• Class I Div 2, ABCD T3C (Ta -40...+70 °C [-40...+158 °F])</li> <li>• Class I Div 2, ABCD T4 (Ta -40...+65 °C [-40...+149 °F])</li> <li>• Class I Div 2, ABCD T4A (Ta -40...+50 °C [-40...+122 °F])</li> <li>• Class II Div 2, FG T5 (Ta -40...+50 °C [-40...+122 °F])</li> <li>• Class II Div 2, FG T6 (Ta -40...+45 °C [-40...+113 °F])</li> <li>• Class III Div 1 &amp; 2 (Ta -40...+50 °C [-40...+122 °F])</li> </ul>
Horn with 5 J strobe	<ul style="list-style-type: none"> <li>• Class I Div 2, ABCD T2B (Ta -40...+70 °C [-40...+158 °F])</li> <li>• Class I Div 2, ABCD T2C (Ta -40...+55 °C [-40...+131 °F])</li> <li>• Class I Div 2, ABCD T2D (Ta -40...+40 °C [-40...+104 °F])</li> <li>• Class II Div 2, FG T5 (Ta -40...+50 °C [-40...+122 °F])</li> <li>• Class III Div 1&amp;2 (Ta -40...+50 °C [-40...+122 °F])</li> </ul>
Horn with 10 J strobe	<ul style="list-style-type: none"> <li>• Class I Div 2, ABCD T1 (Ta -40...+70 °C [-40...+158 °F])</li> <li>• Class I Div 2, ABCD T2 (Ta -40...+50 °C [-40...+122 °F])</li> <li>• Class II Div 2, FG T4A (Ta -40...+50 °C [-40...+122 °F])</li> <li>• Class II Div 2, FG T5 (Ta -40...+104 °F [-40...+40 °C])</li> <li>• Class III Div 1&amp;2 (Ta -40...+50 °C [-40...+122 °F])</li> </ul>

All horns (with and without strobe) comply with the following:

- ANSI/ISA 12.12.01 – 2013
- CSA C22.2 No. 213-M1987
- CSA C22.2 No. 157-92:2006

**Table 168 - Standards and Certifications**

Standards Compliance
<ul style="list-style-type: none"> <li>• c-UL-us Listed UL464/UL 1608 File No. E305533</li> <li>• CSA C22.2 No. 213-M1987</li> <li>• CSA C22.2 No. 157-92: 2006</li> <li>• CE – European Explosive Atmosphere Directive 94/9/EC and European EMC Directive 2004/108/EC</li> <li>• EN60079-0:2012/IEC60079-0: ed. 6.0 (2011-06)</li> <li>• EN60079-15:2010/IEC60079-15: ed. 4.0 (2010-01)</li> <li>• EN60079-31:2009/IEC60079-31:2009 ed. 1.0 (corr. 1 2009)</li> </ul>
Certifications
<ul style="list-style-type: none"> <li>• CE Marked</li> <li>• UL Listed for:                         <ul style="list-style-type: none"> <li>- Class I, Division 2, Groups A, B, C, and D</li> <li>- Class II, Division 2, Groups F and G</li> <li>- Class III, Division 1 and 2 (see Temperature Codes in <a href="#">Table 164 on page 124</a>)</li> </ul> </li> <li>• ATEX/IECEx: Zone 2 Groups IIA, B, C and Zone 22 Groups IIIA, B, and C</li> <li>• Ex Rating (Horn): II 3G Ex nA IIC T4 Gc and II 3D Ex tc IIIC T90 °C Dc (Ta -40...+50 °C [-40...+122 °F])</li> <li>• Ex Rating (Horn with 5 J Strobe): II 3G Ex nA IIC T2 Gc and II 3D Ex tc IIIC T90 °C Dc (Ta -40...+50 °C [-40...+122 °F])</li> <li>• Ex Rating (Horn with 10 J Strobe): II 3G Ex nA IIC T1 Gc and II 3D Ex tc IIIC T110 °C Dc (Ta -40...+50 °C [-40...+122 °F]); [II 3G Ex nA IIC T2 Gc for Ta -40...+40 °C (-40...+104 °F)]</li> </ul>




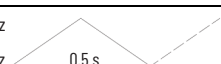
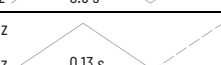

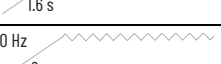

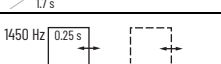
# Tone Selection Table for 855XM



To select the required Stage 1 tone, set switches 1 through 6 to the tone setting shown below. If more than one output is required, 2nd, 3rd, and 4th stage tones are available for use with the selected first stage tone.

Stage 1 Tone No.	Tone Description	Tone Visual	Switch						Stage Alarm		
			1	2	3	4	5	6	2 (S2)	3 (S3)	4 (S4)
1	1000 Hz PFEER toxic gas		0	0	0	0	0	0	3	2	44
2	1200/500 @ 1 Hz DIN / PFEER P.T.A.P.		1	0	0	0	0	0	1	3	44
3	1000 @ 0.5 Hz (1 s on/1 s off) PFEER gen. alarm		0	1	0	0	0	0	1	2	44
4	1.4...1.6 kHz 1 s, 1.6...1.4 kHz 0.5 s NF C 48-265		1	1	0	0	0	0	44	24	1
5	544 (100 ms)/440 (400 ms) NF S 32-001		0	0	1	0	0	0	52	19	1
6	1500/500 - (0.5 s on/0.5 s off) x3 + 1 s gap AS4428		1	0	1	0	0	0	7	44	1
7	500...1500 Hz sweeping 2 s on/1 s off AS4428		0	1	1	0	0	0	6	44	1
8	500/1200 Hz @ 0.26 Hz (3.3 s on/0.5 s off) Netherlands - NEN 2575		1	1	1	0	0	0	44	24	35
9	1000 (1 s on/1 s off) x7 + (7 s on/1 s off)		0	0	0	1	0	0	18	34	1
10	IMO Code 1a		1	0	0	1	0	0	21	34	1
11	420 (0.5 s on/0.5 s off) x3 + 1 s gap ISO 8201 temporal pattern		0	1	0	1	0	0	44	1	8
12	1000 (0.5 s on/0.5 s off) x3 + 1 s gap ISO 8201 temporal pattern		1	1	0	1	0	0	44	1	8
13	422/775 - (0.85 s on/0.5 s off) x3 + 1 s gap NFPA - temporal		0	0	1	1	0	0	44	1	8
14	1000/2000 @ 1 Hz Singapore		1	0	1	1	0	0	23	3	35
15	300 continuous		0	1	1	1	0	0	44	24	35
16	440 continuous		1	1	1	1	0	0	44	24	35
17	470 continuous		0	0	0	0	1	0	44	24	35
18	500 continuous IMO Code 2 (low)		1	0	0	0	1	0	44	24	35
19	554 continuous		0	1	0	0	1	0	64	24	35
20	660 continuous		1	1	0	0	1	0	44	24	35
21	800 IMO Code 2 (high)		0	0	1	0	1	0	44	24	35
22	1200 continuous		1	0	1	0	1	0	44	24	35
23	2000 continuous		0	1	1	0	1	0	15	3	35
24	2400 continuous		1	1	1	0	1	0	48	20	35
25	440 @ 0.83 Hz (50 cycles/min) intermittent		0	0	0	1	1	0	1	44	8
26	470 @ 0.9 Hz - 1.1 s intermittent		1	0	0	1	1	0	1	44	8
27	470 @ 5 Hz - (5 cycles/s) intermittent		0	1	0	1	1	0	1	44	8
28	544 @ 1.14 Hz - 0.875 s intermittent		1	1	0	1	1	0	44	24	8
29	655 @ 0.875 Hz intermittent		0	0	1	1	1	0	1	44	8
30	660 @ 0.28 Hz - 1.8 s on/1.8 s off intermittent		1	0	1	1	1	0	44	24	8

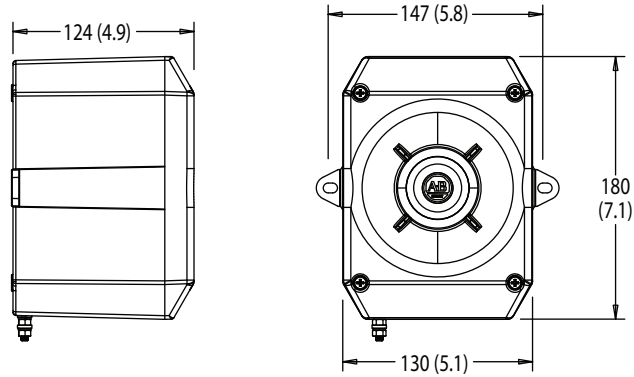
Stage 1 Tone No.	Tone Description	Tone Visual	Switch						Stage Alarm		
			1	2	3	4	5	6	2 (S2)	3 (S3)	4 (S4)
31	660 @ 3.34 Hz - 150 ms on/150 ms off intermittent		0	1	1	1	1	0	30	24	8
32	745 @ 1 Hz intermittent		1	1	1	1	1	0	44	24	8
33	800 - 0.25 s on/1 s off intermittent		0	0	0	0	0	1	53	24	8
34	800 @ 2 Hz IMO Code 3.a (high) intermittent		1	0	0	0	0	1	56	24	8
35	1000 @ 1 Hz intermittent		0	1	0	0	0	1	44	24	8
36	2400 @ 1 Hz intermittent		1	1	0	0	0	1	21	24	8
37	2900 @ 5 Hz intermittent		0	0	1	0	0	1	53	24	8
38	363/518 @ 1 Hz alternating		1	0	1	0	0	1	1	8	19
39	450/500 @ 2 Hz alternating		0	1	1	0	0	1	1	8	19
40	554/440 @ 1 Hz alternating		1	1	1	0	0	1	44	24	19
41	554/440 @ 0.625 Hz alternating		0	0	0	1	0	1	1	8	19
42	561/760 @ 0.83 Hz (50 cycles/min) alternating		1	0	0	1	0	1	1	8	19
43	780/600 @ 0.96 Hz alternating		0	1	0	1	0	1	1	8	19
44	800/1000 @ 2 Hz alternating		1	1	0	1	0	1	5	24	19
45	970/800 @ 2 Hz alternating		0	0	1	1	0	1	1	8	19
46	800/1000 @ 0.875 Hz alternating		1	0	1	1	0	1	53	24	19
47	2400/2900 @ 2 Hz alternating		0	1	1	1	0	1	57	24	19
48	500/1200 @ 0.3 Hz sweeping		1	1	1	1	0	1	44	24	12
49	560/1055 @ 0.18 Hz sweeping		0	0	0	0	1	1	44	24	12
50	560/1055 @ 3.3 Hz sweeping		1	0	0	0	1	1	44	24	12
51	600/1250 @ 0.125 Hz sweeping		0	1	0	0	1	1	44	24	12
52	660/1200 @ 1 Hz sweeping		1	1	0	0	1	1	64	24	12
53	800/1000 @ 1 Hz sweeping		0	0	1	0	1	1	56	24	12
54	800/1000 @ 7 Hz sweeping		1	0	1	0	1	1	57	24	12
55	800/1000 @ 50 Hz sweeping		0	1	1	0	1	1	54	24	12

Stage 1 Tone No.	Tone Description	Tone Visual	Switch						Stage Alarm		
			1	2	3	4	5	6	2 (S2)	3 (S3)	4 (S4)
56	2400/2900 @ 7 Hz sweeping	2900 Hz 2400 Hz  0.14 s	1	1	1	0	1	1	57	24	12
57	2400/2900 @ 1 Hz sweeping	2900 Hz 2400 Hz  1 s	0	0	0	1	1	1	47	24	12
58	2400/2900 @ 50 Hz sweeping	2900 Hz 2400 Hz  0.02 s	1	0	0	1	1	1	54	24	12
59	2500/3000 @ 2 Hz sweeping	3000 Hz 2500 Hz  0.5 s	0	1	0	1	1	1	44	24	12
60	2500/3000 @ 7.7 Hz sweeping	3000 Hz 2500 Hz  0.13 s	1	1	0	1	1	1	44	24	12
61	800 motor siren	800 Hz  1.6 s	0	0	1	1	1	1	44	24	12
62	1200 motor siren	1200 Hz  2 s	1	0	1	1	1	1	44	24	12
63	2400 motor siren	2400 Hz  1.7 s	0	1	1	1	1	1	44	24	12
64	Simulated bell	1450 Hz  0.25 s 0.69 s	1	1	1	1	1	1	44	21	12

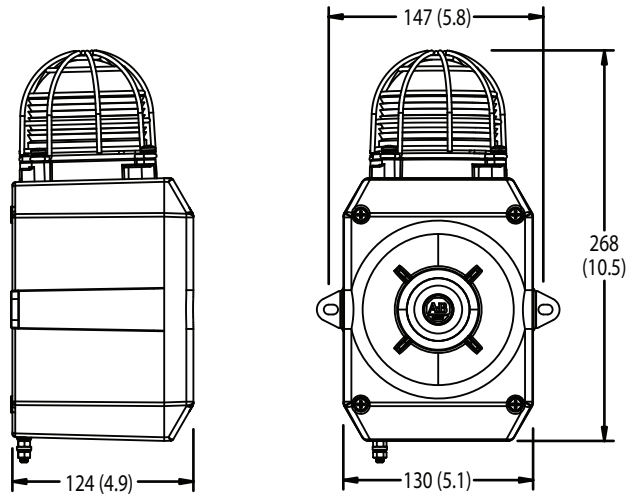
## Approximate Dimensions

Dimensions in millimeters (inches). Dimensions are not intended to be used for manufacturing purposes.

**855XM Hazardous Location Metal Horn**



**855XM-C Hazardous Location Metal Horn with Xenon Strobe**







## Additional Resources

These documents contain additional information concerning related products from Rockwell Automation.

Resource	Description
Industrial Horns Specifications Technical Data, publication <a href="#">855-TD002</a>	Provides specifications on legacy series 855H Industrial Horns.
855H Electronic Horn Tone Selection Guide, publication <a href="#">855H-SG002</a>	Provides tone descriptions and audio samples for 855H metal horns.
Bulletin 855 Signaling Solutions Brochure, publication <a href="#">855-BR001</a>	Provides information on the complete portfolio of signaling solutions for optimized monitoring.
Signaling Device Installation Instructions, publication <a href="#">Literature Library</a>	Provides installation instructions for various signaling devices.
EtherNet/IP Network Devices User Manual, publication <a href="#">ENET-UM006</a>	Describes how to configure and use EtherNet/IP devices to communicate on the EtherNet/IP network.
Ethernet Reference Manual, publication <a href="#">ENET-RM002</a>	Describes basic Ethernet concepts, infrastructure components, and infrastructure features.
System Security Design Guidelines Reference Manual, publication <a href="#">SECURE-RM001</a>	Provides guidance on how to conduct security assessments, implement Rockwell Automation products in a secure system, harden the control system, manage user access, and dispose of equipment.
Industrial Components Preventive Maintenance, Enclosures, and Contact Ratings Specifications, publication <a href="#">IC-TD002</a>	Provides a quick reference tool for Allen-Bradley industrial automation controls and assemblies.
Safety Guidelines for the Application, Installation, and Maintenance of Solid-state Control, publication <a href="#">SGI-1.1</a>	Designed to harmonize with NEMA Standards Publication No. ICS 1.1-1987 and provides general guidelines for the application, installation, and maintenance of solid-state control in the form of individual devices or packaged assemblies incorporating solid-state components.
Industrial Automation Wiring and Grounding Guidelines, publication <a href="#">1770-4.1</a>	Provides general guidelines for installing a Rockwell Automation industrial system.
Product Certifications website, <a href="#">rok.auto/certifications</a> .	Provides declarations of conformity, certificates, and other certification details.

You can view or download publications at [rok.auto/literature](#).

# Rockwell Automation Support

Use these resources to access support information.

<b>Technical Support Center</b>	Find help with how-to videos, FAQs, chat, user forums, and product notification updates.	<a href="http://rok.auto/support">rok.auto/support</a>
<b>Knowledgebase</b>	Access Knowledgebase articles.	<a href="http://rok.auto/knowledgebase">rok.auto/knowledgebase</a>
<b>Local Technical Support Phone Numbers</b>	Locate the telephone number for your country.	<a href="http://rok.auto/phonesupport">rok.auto/phonesupport</a>
<b>Literature Library</b>	Find installation instructions, manuals, brochures, and technical data publications.	<a href="http://rok.auto/literature">rok.auto/literature</a>
<b>Product Compatibility and Download Center (PCDC)</b>	Download firmware, associated files (such as AOP, EDS, and DTM), and access product release notes.	<a href="http://rok.auto/pcdc">rok.auto/pcdc</a>





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