

Signaling Specifications

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

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Summary of Changes

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Added Accessory tables	Throughout
Updated ingress ratings in Table 10 and Table 31	14 and 27
Added Bulletin 855H — Recordable Electronic Horns section	18
Updated ingress rating in Table 31	27
Updated product photo	49
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Updated dimension drawings	71 and 72
Added Bulletin 856T — 70 mm Control Tower Stack Lights section	87

Additional Resources

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

Resource	Description
855 Metal Horns Selection Guide, publication 855-SG002	Provides product selection for 855XM and 855HM metal horns.
Bulletin 855 Signaling Solutions Brochure, publication 855-BR001	Provides information on the complete portfolio of signaling solutions for optimized monitoring
Industrial Automation Wiring and Grounding Guidelines, publication 1770-4.1	Provides general guidelines for installing a Rockwell Automation industrial system.
Product Certifications website, http://www.rockwellautomation.com/global/certification/overview.page	Provides declarations of conformity, certificates, and other certification details.

You can view or download publications at <http://www.rockwellautomation.com/global/literature-library/overview.page>. To order paper copies of technical documentation, contact your local Allen-Bradley distributor or Rockwell Automation sales representative.



Bulletin 855P — Panel-mount Signaling Alarms

Bulletin 855P — Panel-mount Sounder

855P – B 10 ME 22
 a b c d



30 mm Panel-mount Sounder



45 mm Panel-mount Sounder



65 mm Panel-mount Sounder

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

Bulletin 855PC — Panel-mount Combined Sounder with LED Beacon

855PC – B 10 ME 3 22
 a b c d e



45 mm Panel-mount Combined Sounder with LED Beacon



65 mm Panel-mount Combined Sounder with LED Beacon

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

Bulletin 855PS — Panel-mount Strobe

855PS – B 10 ME 3 22
 a b c d e



30 mm Panel-mount Strobe



45 mm Panel-mount Strobe



65 mm Panel-mount Strobe

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 ^{(1) (2)}
ME	45 mm ^{(3) (4)}
LE	65 mm ^{(3) (4)}

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.

Bulletin 855PB — Panel-mount Selectable Steady or Flashing LED Beacon

855PB – B 10 ME 3 22
 a b c d e



30 mm Panel-mount LED Beacon



45 mm Panel-mount LED Beacon



65 mm Panel-mount LED Beacon

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

Bulletin 855PD — Panel-mount Dual Circuit Alarms

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



Half-lens Illumination



Full-lens Illumination



Combined Sounder with LED Beacon

a	
Housing Color	
Code	Description
B	Black

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

c	
Size	
Code	Description
SE	30 mm ^{(2) (3)}
ME	45 mm
LE	65 mm

d	
Function	
Code	Description
F	2-color, full-lens illumination
H	2-color, half-lens illumination with barrier
C	Combined sounder with LED beacon ⁽³⁾

- (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 ⁽¹⁾ /Sound	
Code	Description
1	Sound
3	Green
4	Red
5	Amber
6	Blue
7	Clear
8	Yellow

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

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 listed in the cat. no. 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 — Bulletin 855P

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

Specifications — Bulletin 855P

Panel Sounder and Single/Dual Circuit Panel Sounder with LED

Table 1 - Technical

Attribute		Value
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 ² (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 2 - 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	Yes
	Pulsing ⁽¹⁾	Yes	Yes	Yes	Yes	Yes
	Alternating frequency ⁽¹⁾	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.

Standards Compliance

- EN/IEC 60947-1
- EN/IEC 60947-5-1
- UL 508
- CSA C22.2 No. 14

Certifications

- c-UL-us Listed (File No. E14840, Guides NKCR, NKCR7)
- CE Marked

Panel Strobe and Single/Two Color LED Lights

Table 3 - Technical

Attribute		Value
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 ² (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 4 - Electrical

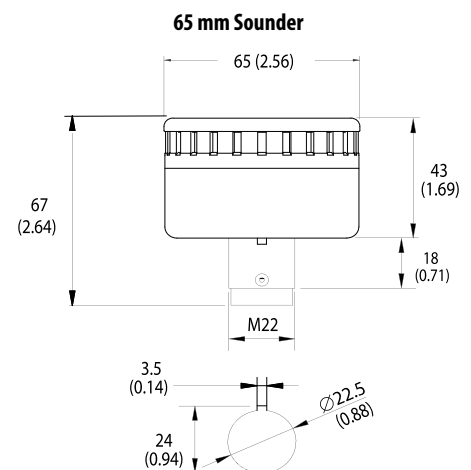
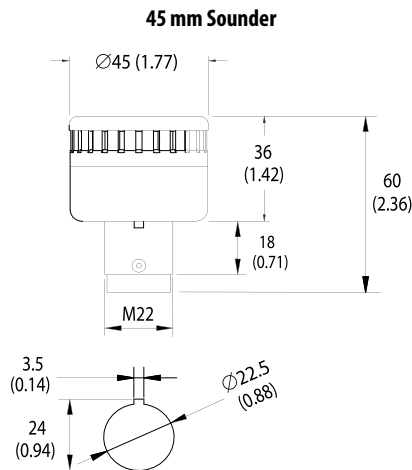
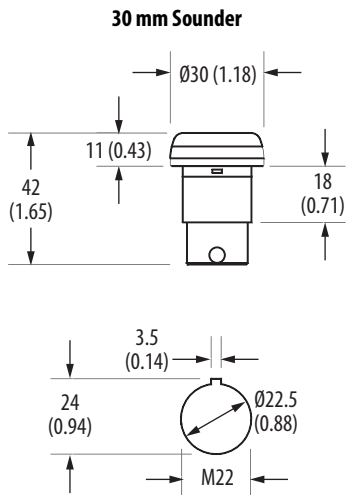
Attribute		LED Beacon — Steady/Flashing			Strobe Light		
		65 mm	45 mm	30 mm	65 mm	45 mm	30 mm
Supply voltage range	12V AC/DC, 50/60 Hz	±10%	±10%	±10%	—	—	±10%
	24V AC/DC, 50/60 Hz	±10%	±10%	±10%	—	—	±10%
	12...24V AC/DC, 50/60 Hz	—	—	—	8...26V AC/DC	8...26V AC/DC	—
	120V AC, 50/60 Hz	±10%	±10%	±10%	±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 — Bulletin 855P

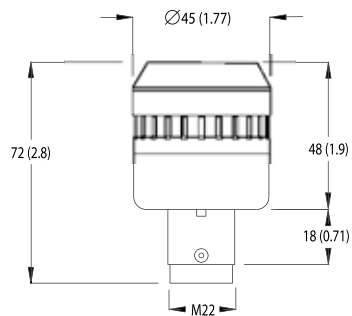
Dimensions in millimeters (inches). Dimensions are not intended to be used for manufacturing purposes.

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

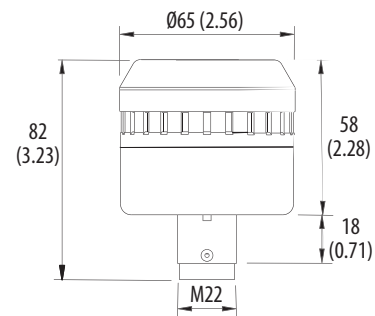
Terminal connector for 45 mm and 65 mm devices adds 9 mm (0.35 in.) to back-of-panel depth



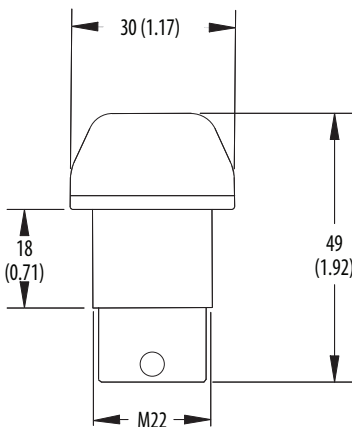
45 mm Combined Sounder with LED Beacon



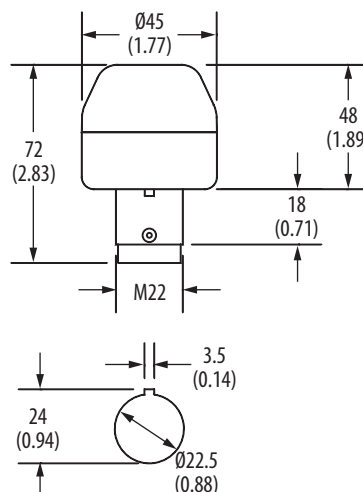
65 mm Combined Sounder with LED Beacon



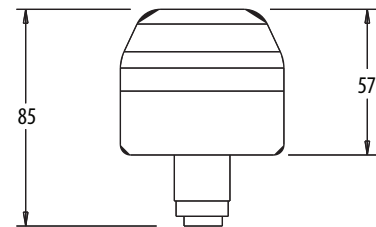
**30 mm LED
30 mm Strobe**



**45 mm LED
45 mm Strobe**



**65 mm LED
65 mm Strobe**



Bulletin 855L — Panel Light Bars

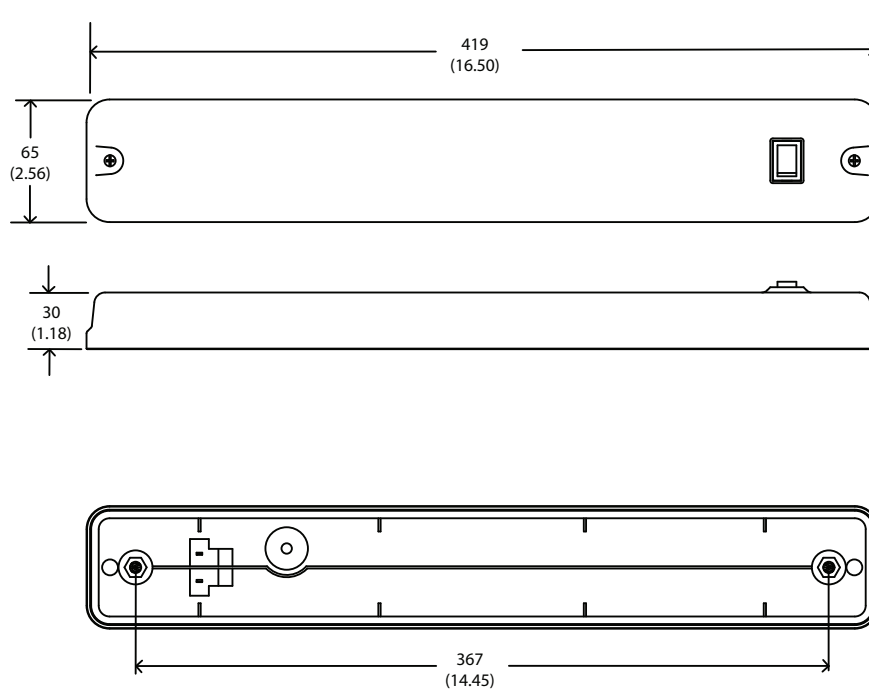
Specifications — Bulletin 855L



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 ²)	
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	<1 lb (380 g)	
Standards Compliance	EN61000-6-2, EN61000-6-3, EN60947-5-1	
Certifications	CE Marked, c-UL-us File No. E14840	
LED MTFB	50,000 hr	

Approximate Dimensions — Bulletin 855L

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



Bulletin 855H — General-purpose Electronic Horns

Single- or dual-circuit, selectable tone horns, with volume control, for use in general signaling applications.



855H – SG 10 GPA
 a b c

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 — Bulletin 855H General-purpose Electronic Horns

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

(1) For use with mounting type SG only.

Specifications — Bulletin 855H General-purpose Electronic Horns

Table 5 - 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 6 - Materials

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

Table 7 - 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 8 - 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

Standards Compliance

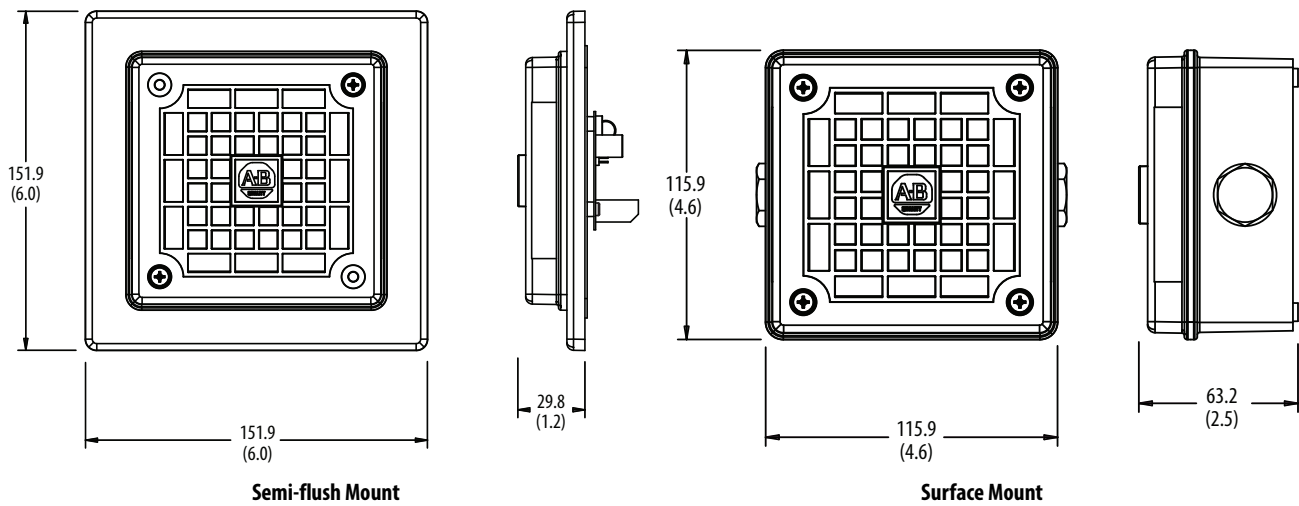
- UL 464
- CSA C22.2 No. 205
- EN/IEC 60947-1
- EN/IEC 60947-5-1
- EN 6100-6-2
- EN 6100-6-3

Certifications

- c-UL-us Listed (File No. S6583, Guides UCST, UCST7)
- CE Marked

Approximate Dimensions — Bulletin 855H General-purpose Electronic Horns

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



Bulletin 855H — High-performance Electronic Horns

High-performance Electronic Horns

855H – B D30 B D
 a b c d



Range "A" Industrial Horn



Range "C" Industrial Horn



Range "E" Industrial Horn

a	
Product Type	
Code	Description
B	Industrial horn, gray housing

b	
Voltage	
Code	Description
D30	10...30V 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	104 dB, 32 tone, 3-stage (DC)
	104 dB, 32 tone, 3-stage (AC)
C	112 dB, 32 tone, 3-stage (DC)
	112 dB, 32 tone, 3-stage (AC)
D	119 dB, 45 tone, 3-stage (DC)
	119 dB, 45 tone, 3-stage (AC)
E	126 dB, 45 tone, 3-stage (DC)
	126 dB, 45 tone, 3-stage (AC)

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

High-performance Electronic Horns with Attached Strobe Beacons

855H – $\frac{BC}{a}$ $\frac{D12}{b}$ $\frac{E}{c}$ $\frac{D}{d}$ $\frac{R}{e}$ $\frac{3}{f}$



Range "A" Horn with Beacon



Range "C" Horn with Beacon



Range "E" Horn with Beacon

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

b	
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	104 dB, 32 tone, 3-stage (DC)
	104 dB, 32 tone, 3-stage (AC)
C	112 dB, 32 tone, 3-stage (DC)
	112 dB, 32 tone, 3-stage (AC)
D	119 dB, 45 tone, 3-stage (DC)
	119 dB, 45 tone, 3-stage (AC)
E	126 dB, 45 tone, 3-stage (DC)
	126 dB, 45 tone, 3-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	
Code	Description
3	Green
4	Red
5	Amber
6	Blue
7	Clear
8	Yellow

Accessories — Bulletin 855H High-performance Electronic Horns

		Description	Cat. No.
		M20 hole plug replacement kit	855H-AHPK
	Description	Type	Cat. No.
	Gasket Set Replacement Kit	Range A, B, and Beacon Light	855H-AGKBAB
		Range C Horn	855H-AGKC
		Range D Horn	855H-AGKD
Range E Horn		855H-AGKE	
	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 — Bulletin 855H High-performance Electronic Horns

Table 9 - Mechanical

Device	The following are reference guidelines for maximum shock and vibration standards for the 855H horn.	
	Shock	Vibration
Range A Horn	15 G Peak	3 G Peak
Range B Horn	15 G Peak	3 G Peak
Range C Horn	15 G Peak	3 G Peak
Range D Horn	15 G Peak	3 G Peak
Range E Horn	15 G Peak	1 G Peak
Range A Horn with Strobe Beacon	15 G Peak	3 G Peak
Range B Horn with Strobe Beacon	15 G Peak	3 G Peak
Range C Horn with Strobe Beacon	15 G Peak	3 G Peak
Range D Horn with Strobe Beacon	15 G Peak	3 G Peak
Range E Horn with Strobe Beacon	15 G Peak	1 G Peak

Table 10 - Environmental

Attribute	Device	Value
Ingress Ratings	Electronic Horns	Range A, B, and D: UL Type 13/3R, IP66 Range C and E: UL Type 4/4X/13/3R, IP66
	Horn with Beacon	Range A, B, and D: UL Type 13/3R, IP66 Range C and E: UL Type 4/4X/13/3R, IP66
Temperature Ranges	Operating	-25...+55 °C (-13...+131 °F)
	Storage	-40...+75 °C (-40...+167 °F)

Table 11 - 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 12 - Performance Ratings

Attribute	Device	Performance Rating
Sound Output	Range A Horn	100 dB max @ 1 m (3.3 ft)
	Range B Horn	104 dB max @ 1 m (3.3 ft)
	Range C Horn	112 dB max @ 1 m (3.3 ft)
	Range D Horn	119 dB max @ 1 m (3.3 ft)
	Range E Horn	126 dB max @ 1 m (3.3 ft)
Xenon Lamp Rating	Strobe Beacon	5 J output

Table 13 - Operating Voltage

Device	DC Voltage		AC Voltage		
	Range A	Range B	Range C	Range D	Range E
All Horns	10...30V DC	10...30V DC	24V AC, 50/60 Hz (±10%)	115V AC, 50/60 Hz (±10%)	230V AC, 50/60 Hz (±10%)
All Horns with Strobe Beacon	12V DC ±10%	24V DC ±10%			

Table 14 - Current Consumption [mA]

Attribute		Range A	Range B	Range C	Range D	Range E
Horns	10...30V DC	25	25	25	200	950
	24V AC, 50/60 Hz	40	40	40	500	1000
	115V AC, 50/60 Hz	13	20	20	100	240
	240V AC, 50/60 Hz	13	15	15	60	120
Horns with Strobe Beacon	12V DC	525	525	525	700	1450
	24V DC	275	275	275	450	1200
	24V AC	405	405	405	865	1200
	115V AC	113	120	120	200	340
	240V AC	63	65	65	110	170

Table 15 - Flashing Frequency

Attribute	Range A	Range B	Range C	Range D	Range E
Strobe Beacon	1 Hz				

Standards Compliance

- UL 464
- CSA C22.2 No. 205
- EN/IEC 60947-1
- EN/IEC 60947-5-1
- EN 6100-6-2
- EN 6100-6-4

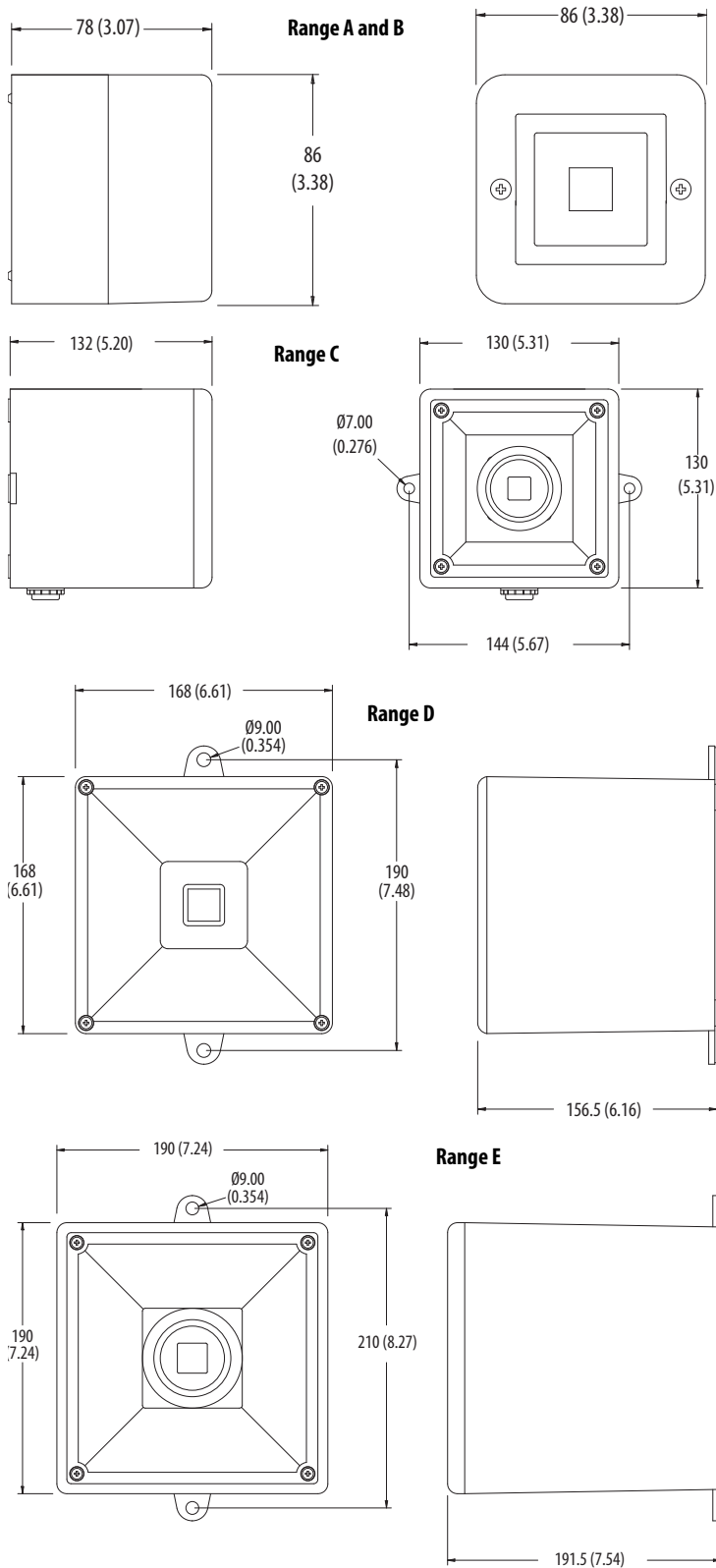
Certifications

- c-UL-us Listed (File No. S6583, Guides UCST, UCST7)
- CE Marked

Approximate Dimensions — Bulletin 855H High-performance Electronic Horns

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

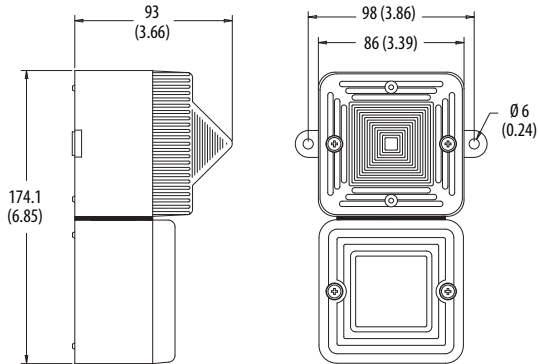
Horns



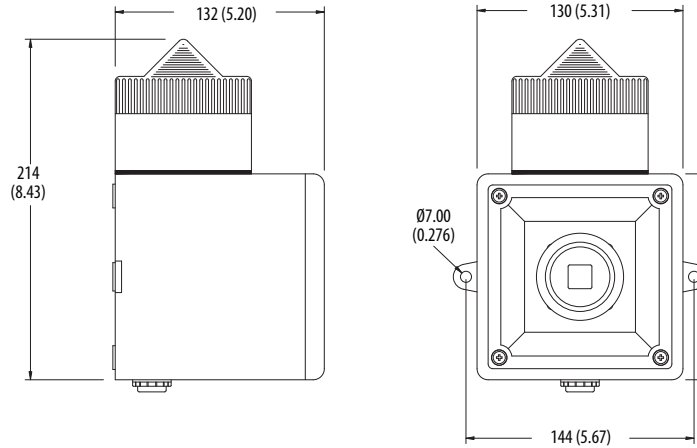
Dimensions in millimeters (inches). Dimensions are not intended to be used for manufacturing purposes.

Horns with Beacons

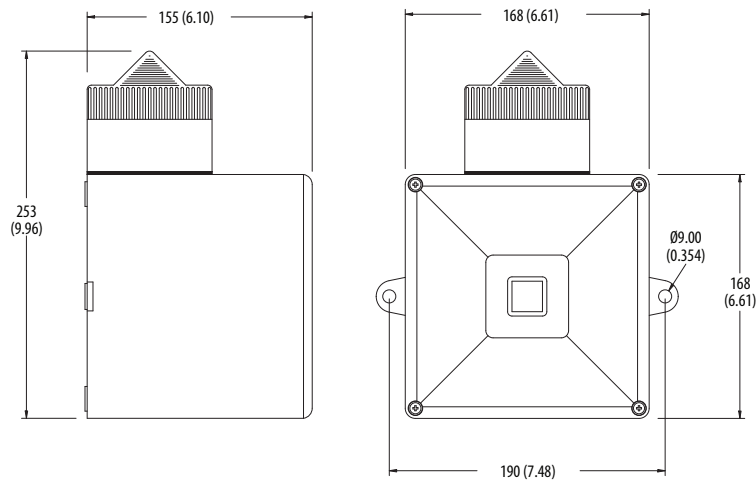
Range A and B



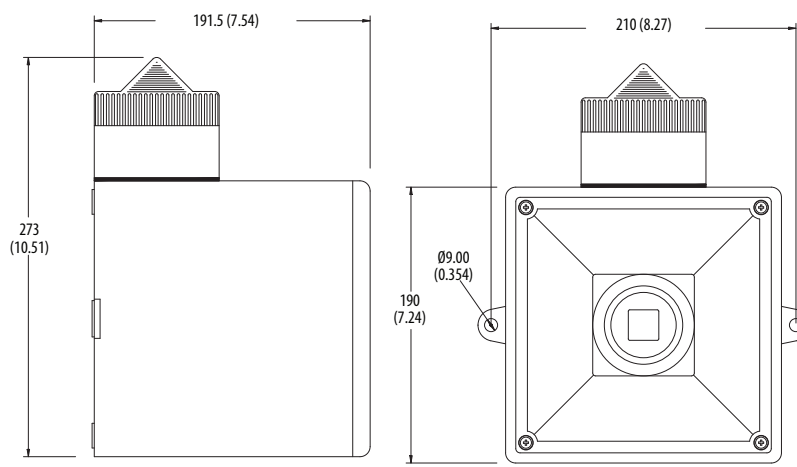
Range C



Range D



Range E



Bulletin 855H — Recordable Electronic Horns



Frame C (DC)



Frame C (AC)



Frame E (All Versions)



Flair 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



Frame C Horn with Beacon (DC)



Frame C Horn with Beacon (AC)



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	12...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
3	Green
4	Red
5	Amber

(1) LED beacon steady or flashing selectable/
(2) Frame C is 12...30V DC
Frame E is 14...30V DC

Specifications — Bulletin 855H Recordable Horns and Horns with LED Beacons

Table 16 - Mechanical

Device	The following are reference guidelines for maximum shock and vibration standards for the 855H horn.	
	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 17 - Environmental

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

Table 18 - 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 19 - 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	

Table 20 - 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: 12...30V DC Frame E: 14...30V DC	

Table 21 - 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	413 mA	—
	120V AC, 50/60 Hz	172 mA	—
	230V AC, 50/60 Hz	159 mA	—

Table 22 - Flashing Frequency

Attribute		Frame C	Frame E	Flare Style
LED Beacon			2 Hz	
LED Light Output	Red		66 cd	
	Amber		78 cd	
	Green		129 cd	

Standards Compliance

- UL 464
- CSA C22.2 No. 205
- EN 60065
- EN 6100-6-1
- EN 6100-6-2
- EN 6100-6-3
- EN 6100-6-4

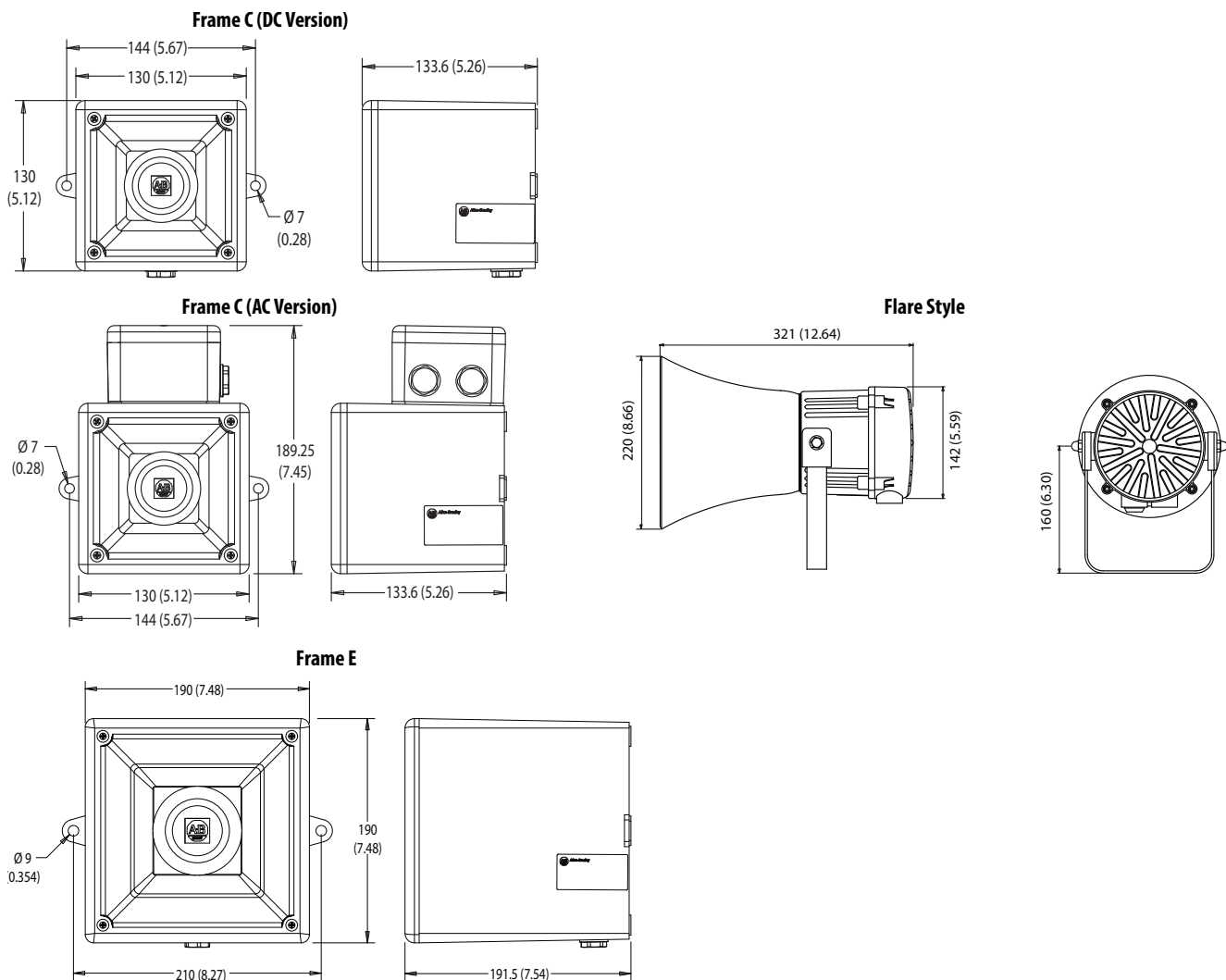
Certifications

- c-UL-us Listed (File No. S6583, Guides UCST, UCST7)
- CE Marked

Approximate Dimensions — Bulletin 855H Recordable Horns and Horns with LED Beacons

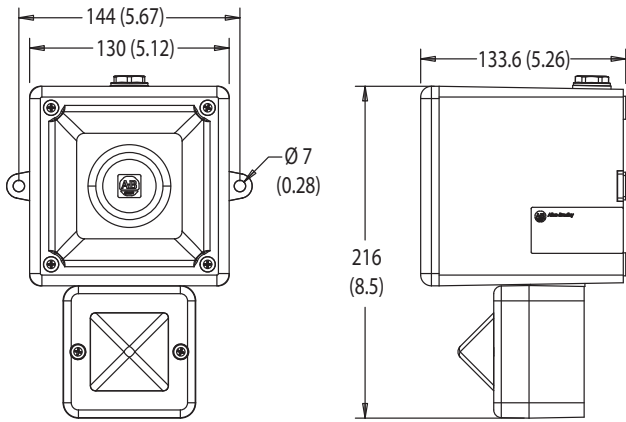
Dimensions in millimeters (inches). Dimensions are not intended to be used for manufacturing purposes.

Recordable Horns

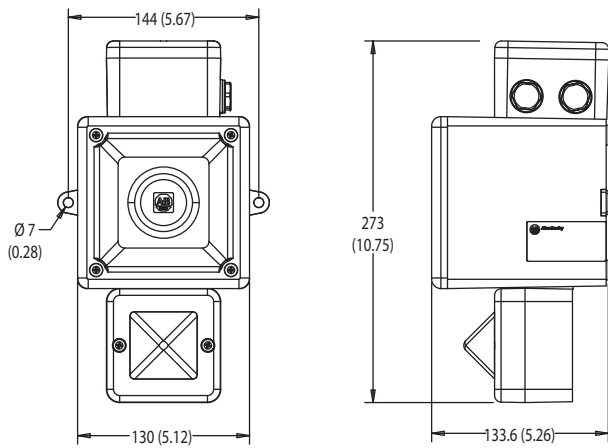


Recordable Horns with LED Beacon

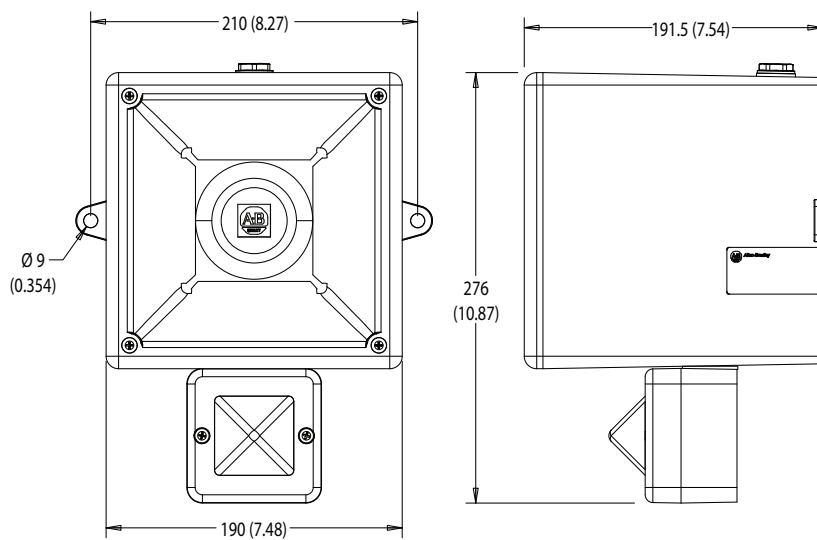
Frame C (DC Version)



Frame C (AC Version)



Frame E



Bulletin 855HM — High-performance Electronic Metal Horns



High-performance Electronic Metal Horns

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

855HM - C G M D30 D L 3
 a b c d e f g

a	
Product Type	
Code	Description
C	Electronic horn with LED steady/flashing 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	12...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	Steady/flashing LED

g	
Lens Color	
Code	Description
3	Green
4	Red
5	Amber
6	Blue
7	Clear

Specifications — Bulletin 855HM

Table 23 - Mechanical

Device	The following are reference guidelines for maximum shock and vibration standards for the 855XM horn.	
	Shock [G]	Vibration [G]
Metal horn	40	3
Metal horn with LED beacon	30	3

Table 24 - 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 25 - 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 26 - 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 [cd]			
Red LED Beacon			66	
Amber LED Beacon			78	
Green LED Beacon			176	
Blue LED Beacon			45	
Clear LED Beacon			120	

Table 27 - 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	12...30V DC	115V AC 50/60 Hz (±10%) 230V AC 50/60 Hz (±10%)

Table 28 - Current Consumption

Device	Voltage	Current Consumption
Horns	10...30V DC	270 mA max. @ 30V 200 mA @ 24V 100 mA @ 12V
	115V AC 50/60 Hz	100 mA
	230V AC 50/60 Hz	60 mA
Horns with LED beacon	12...30V DC	436 mA max. @ 30V 357 mA @ 24V 220 mA @ 12V
	115V AC	160 mA
	230V AC	95 mA

Table 29 - Flashing Frequency

Device	Frequency
LED beacon	Steady or 2 Hz

Standards Compliance

- CSA C22.2 No. 205
- EN/IEC 60947-1
- EN/IEC 60947-5-1
- EN 61000-6-2
- EN 61000-6-4
- UL 464
- UL 1638

Certifications

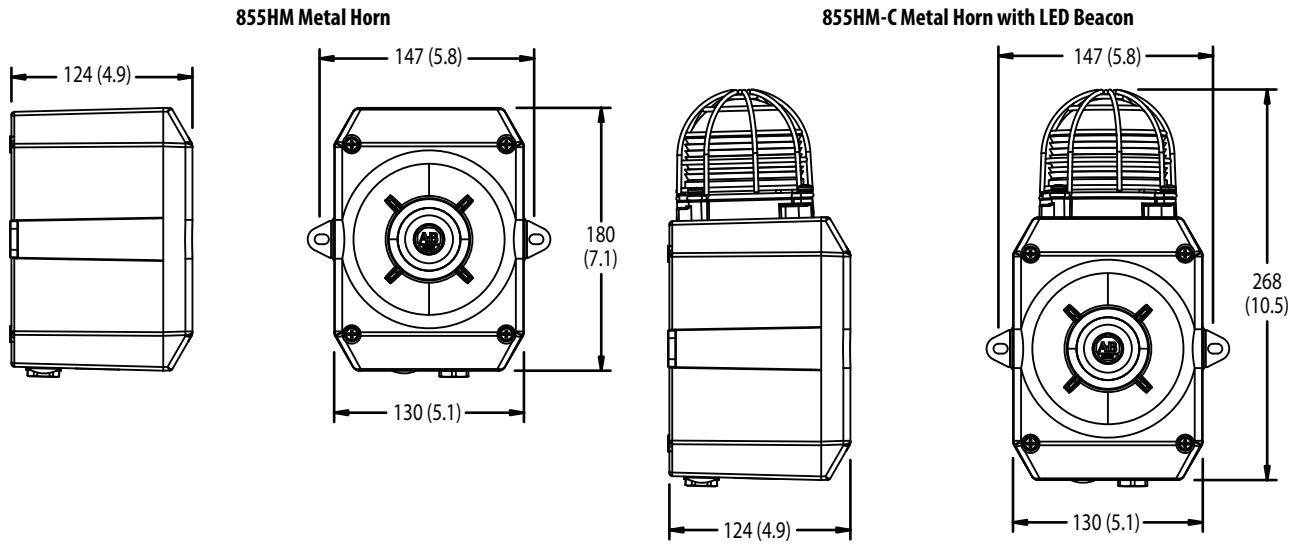
- CE Marked
- c-UL-us Listed (File No. E197159 and S6583, Guides UCST, UCST7)

Tone Table — Bulletin 855HM

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

Approximate Dimensions — Bulletin 855HM

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



Bulletin 855B — Mini Square Beacons



Mini Square Strobe Beacon

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

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 — Bulletin 855H High-performance Electronic Horns

	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 — Bulletin 855B

Table 30 - Mechanical

Device	The following are reference guidelines for maximum shock and vibration standards for the 855B beacon lights.	
	Shock	Vibration
All strobe beacons	50 G Peak	5 G Peak

Table 31 - Environmental

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

Table 32 - Materials

Part	Material
Housing and Lens	Polycarbonate
Gasket	Nitrile 70

Table 33 - Performance Ratings

Attribute	Device	Performance Rating
Xenon Lamp Rating	All Strobe Beacons	5 J

Table 34 - 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 35 - Current Consumption

Device	Current Consumption [mA]	
All Strobe Beacons	24V AC/DC	365/250
	120V AC	100
	230V AC	50

Table 36 - Flashing Frequency

Device	Flashing Frequency
Strobe Beacon	1 Hz

Standards Compliance

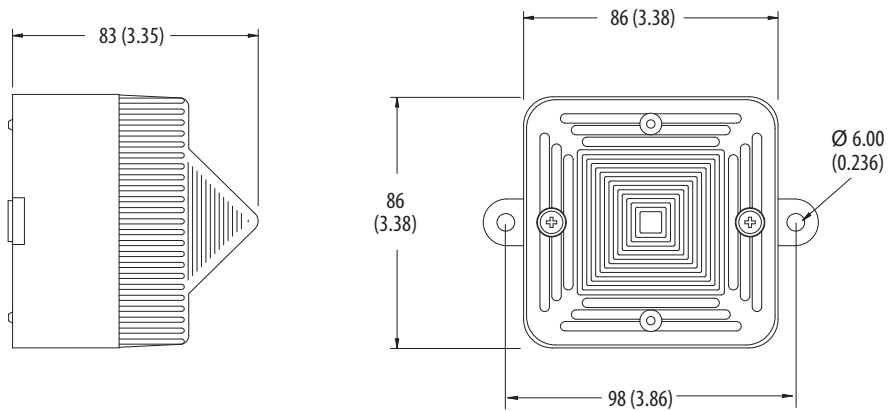
- UL 464
- UL 1638
- CSA C22.2 No. 205
- EN/IEC 60947-1
- EN/IEC 60947-5-1
- EN 6100-6-2
- EN 6100-6-4
- CAN/ULLC-S526-M87

Certifications

- c-UL-us Listed (File No. E197159, Guides UUES, UEES7)
- CE Marked

Approximate Dimensions — Bulletin 855B

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



Bulletin 855BS, 855BM, 855BL — Industrial Round Beacons



Bulletin 855BS — 90 mm Beacons

855BS — $\frac{S}{a}$ $\frac{10}{b}$ $\frac{RH}{c}$ $\frac{3}{d}$

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

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 ⁽³⁾
SL	Single-color LED selectable steady/flash ⁽⁴⁾
ML	Three-color LED ^{(5) (6)}
BL	LED strobe selectable single/double flash ⁽⁷⁾

d	
Lens Color	
Code	Description
345	Green, red, amber ⁽⁶⁾
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.

Bulletin 855BM — 120 mm Beacons

855BM — $\frac{S}{a}$ $\frac{10}{b}$ $\frac{FH}{c}$ $\frac{4}{d}$

a	
Base Type	
Code	Description
S	Surface mount ⁽¹⁾
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 ⁽²⁾

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.

Bulletin 855BL — 160 mm Beacons

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

a	
Base Type	
Code	Description
S	Surface mount ⁽¹⁾
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 ⁽²⁾

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 — Bulletin 855BS, 855BM, 855BL

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

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

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 ⁽¹⁾
AFL	Replacement Fresnel lens ⁽²⁾
ALL	Replacement LED lens ⁽³⁾

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.

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 ⁽¹⁾
AVM	Vertical bracket
LS	Strobe tube (120 mm or 160 mm only)
ABS	Surface mount base ⁽²⁾
ABN	NPT conduit mount base






(1) Required for UL Type 4/4X/13 rating when using surface mount base outdoors.
 (2) 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 37 - Lamps, Lenses, and Power Modules

Description		90 mm	120 mm	160 mm	
Replacement Lamps		Voltage	Cat. No.	Cat. No.	
	Xenon strobe tube	—	855BM-LS	855BL-LS	
	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	
Replacement Lenses		Lens Color	Cat. No.	Cat. No.	
	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	—	—
Power Modules ⁽¹⁾		Voltage	Cat. No.	Cat. No.	
	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) All power modules include a lamp.

Table 38 - Bases and Miscellaneous Accessories and Replacement Parts

	Description	90 mm	120 mm	160 mm
	Replacement Bases	Cat. No.	Cat. No.	Cat. No.
	Surface mount base ⁽¹⁾	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
	Miscellaneous Accessories and Replacement Parts	Cat. No.	Cat. No.	Cat. No.
	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 ⁽²⁾	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 — Bulletin 855BS, 855BM, 855BL

Table 39 - 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 ² (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 40 - 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
Attribute	90 mm												
	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											

Standards Compliance

- UL 508
- EN/IEC 60947-1
- EN/IEC 60947-5-1
- CSA C22.2 No. 14

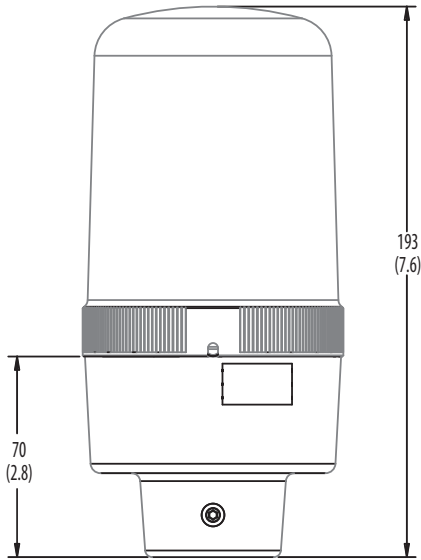
Certifications

- c-UL-us Listed (File No. E14840, Guides NKCR, NKCR7)
- CE Marked

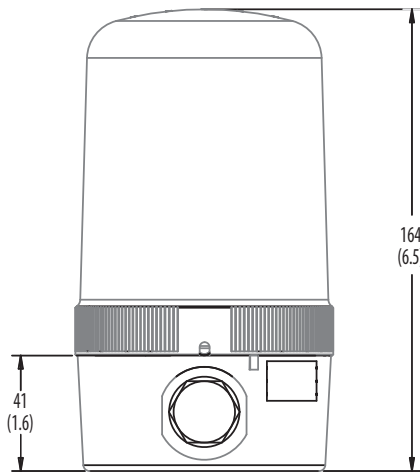
Approximate Dimensions — Bulletin 855BS, 855BM, 855BL

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

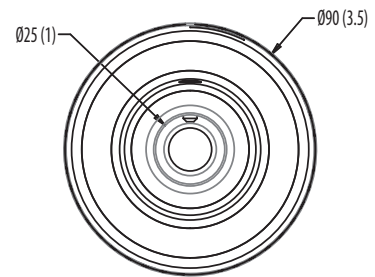
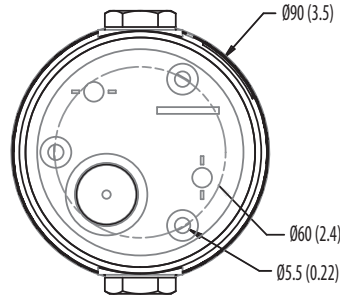
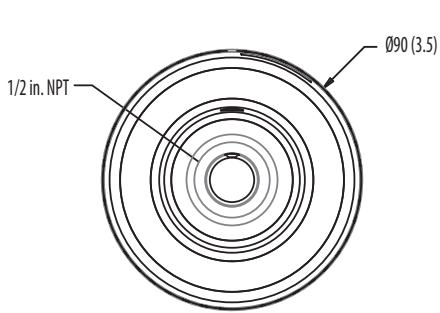
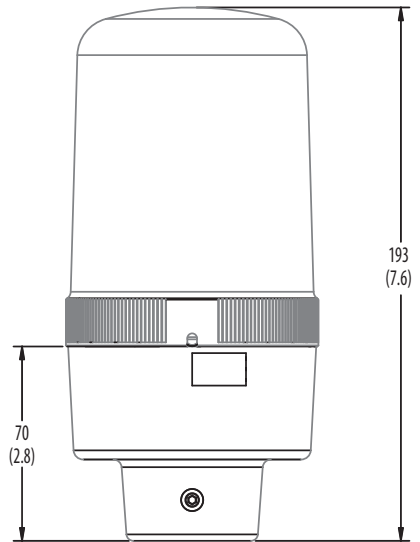
90 mm Beacon, NPT Conduit Mount



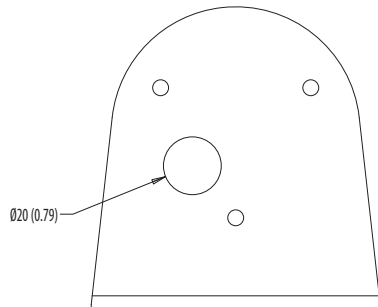
90 mm Beacon, Surface Mount



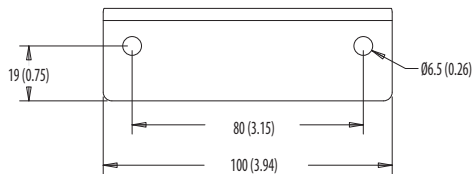
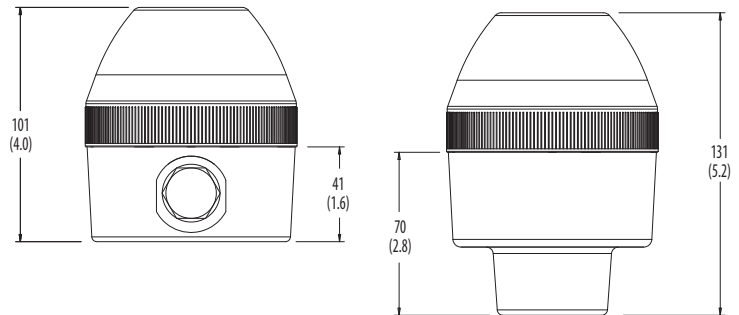
90 mm Beacon, Tube Mount



90 mm Beacon, Vertical Bracket

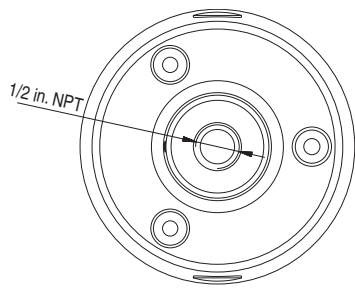
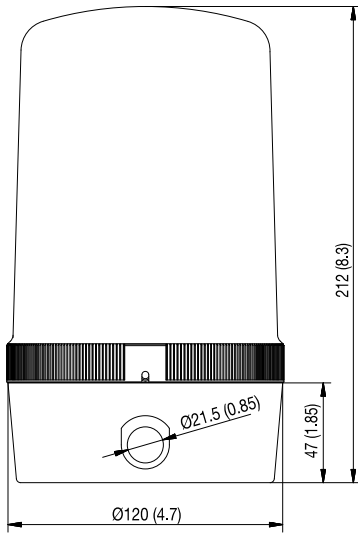


90 mm LED Beacon

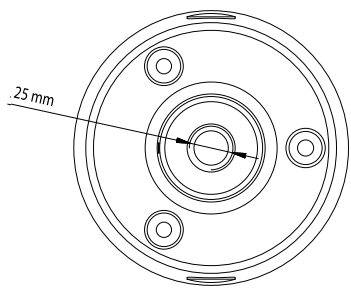
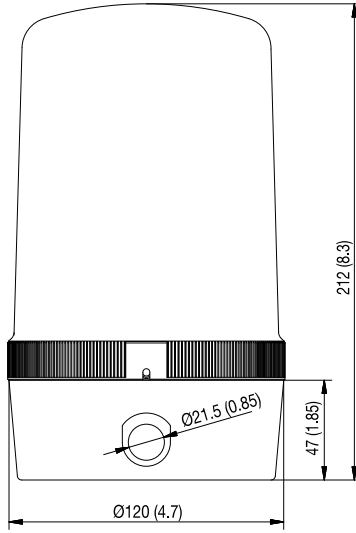


Dimensions in millimeters (inches). Dimensions are not intended to be used for manufacturing purposes.

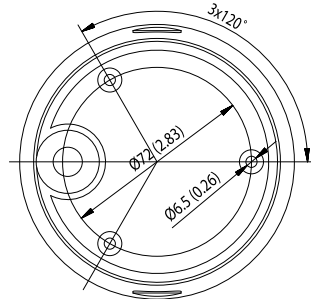
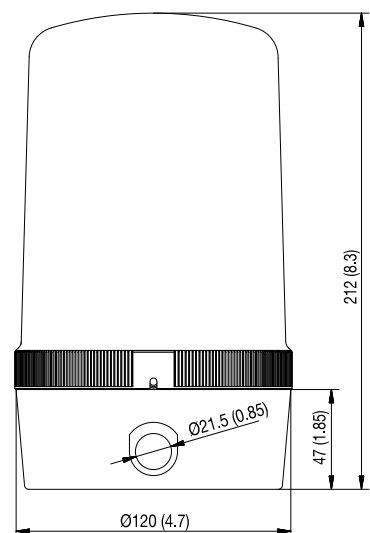
120 mm Beacon, NPT Conduit Mount



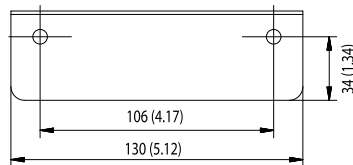
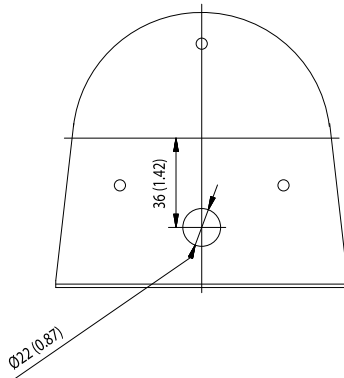
120 mm Beacon, Surface Mount



120 mm Beacon, Tube Mount

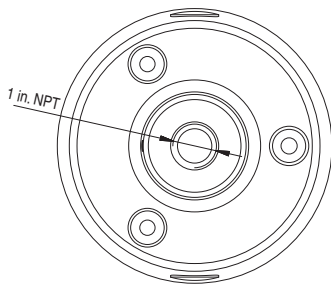
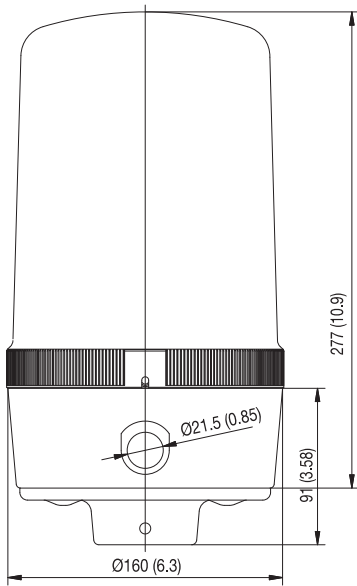


120 mm Beacon, Vertical Bracket

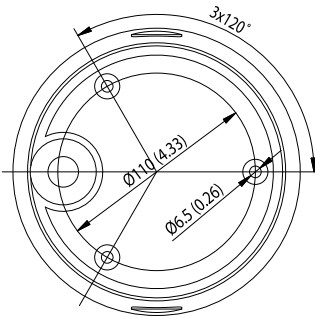
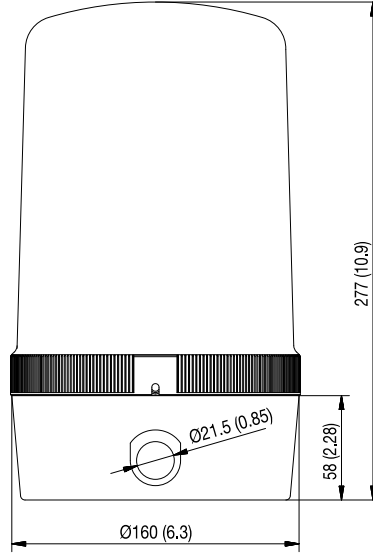


Dimensions in millimeters (inches). Dimensions are not intended to be used for manufacturing purposes.

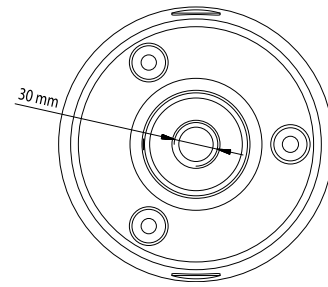
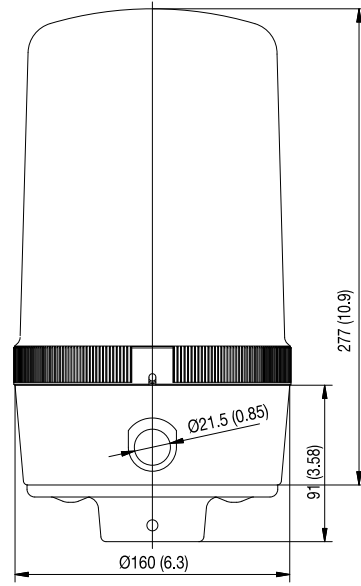
160 mm Beacon, NPT Conduit Mount



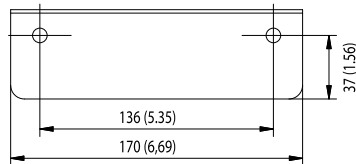
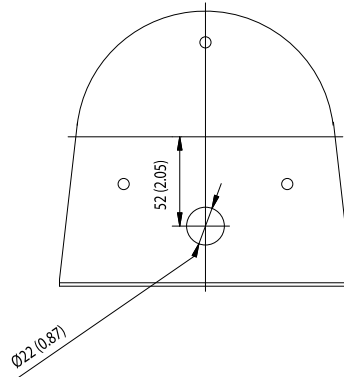
160 mm Beacon, Surface Mount



160 mm Beacon, Tube Mount

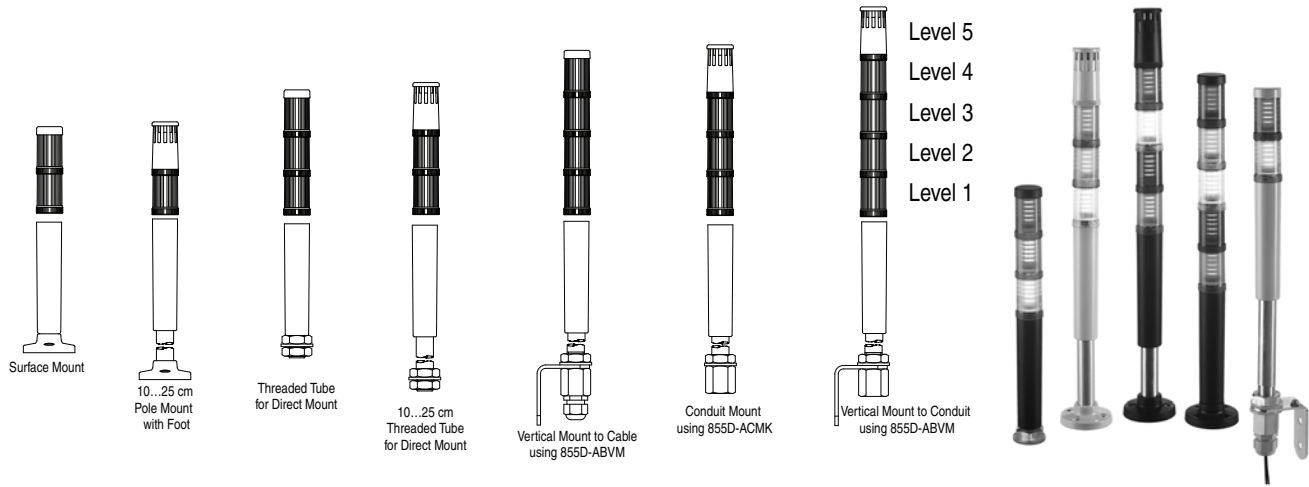


160 mm Beacon, Vertical Bracket



Bulletin 855D — 30 mm Compact Control Tower™ Stack Lights

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 ⁽¹⁾	
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

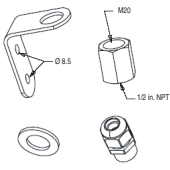
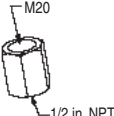
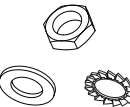





e	
Voltage	
Code	Description
24	24V AC/DC
10	120V AC
20	240V AC

f	
Module Type ^{(1) (2)}	
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 ⁽³⁾

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 — Bulletin 855D

	Description	Cat. No.	
	<p>Vertical Mount Kit Includes the following:</p> <ul style="list-style-type: none"> • L-bracket • Thread adapter • Black cable gland (1/2 in. NPT) • Plastic washer 	855D-ABVM	
	<p>Conduit Mount Kit M20 to 1/2 in. NPT thread adapter</p>	855D-ACMK	
	<p>Direct Mount Kit Includes the following:</p> <ul style="list-style-type: none"> • M20 nut • Plastic washer • Metal lock washer 	855D-ARDM	
	Base Foot Gasket (Bag of 5)	855D-APFG	
	<p>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)</p>	855T-AMSG	
	<p>Field-installable 4-pin DC Micro style terminal chamber. For additional chamber style terminals, see https://ab.rockwellautomation.com/Connection-Devices/Cables-and-Cordsets.</p>	871A-TS4-DM	
	Description	Color	Cat. No.
	Locking ring for Bulletin 854J, 855D, and 855E quick release bases	Black	855D-ABQLR
	Locking ring for quick release base	Gray	855D-AGQLR
	Internal gasket for quick release base (order quantity of 1 and receive bag of five gaskets)		
	Quick release mounting base with gasket		

Specifications — Bulletin 855D

Table 41 - Mechanical

Standard Bases		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.	
		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 42 - Environmental

Attribute		Value
Ingress Ratings	Light Modules	IP65/UL Type 4/4X/13
	Sound Modules	IP65/UL Type 4/4X/13
	Surface, Pole, Vertical, Tube Mount Bases	IP65/UL Type 4/4X/13
Temperature Ranges	Operating	-25...+50 °C (-13...+122 °F)
	Storage	-25...+85 °C (-13...+185 °F)

Table 43 - 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 44 - Estimated Light Output⁽¹⁾

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 45 - 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 46 - 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 47 - 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 48 - Flashing Frequency (Light Only Modules)

Device	Flashing Frequency
Flashing LED Modules	Approximately 2 Hz

Table 49 - Decibel Rating (Sound Modules) ⁽¹⁾

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 50 - Leakage Current Impact

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

Standards Compliance

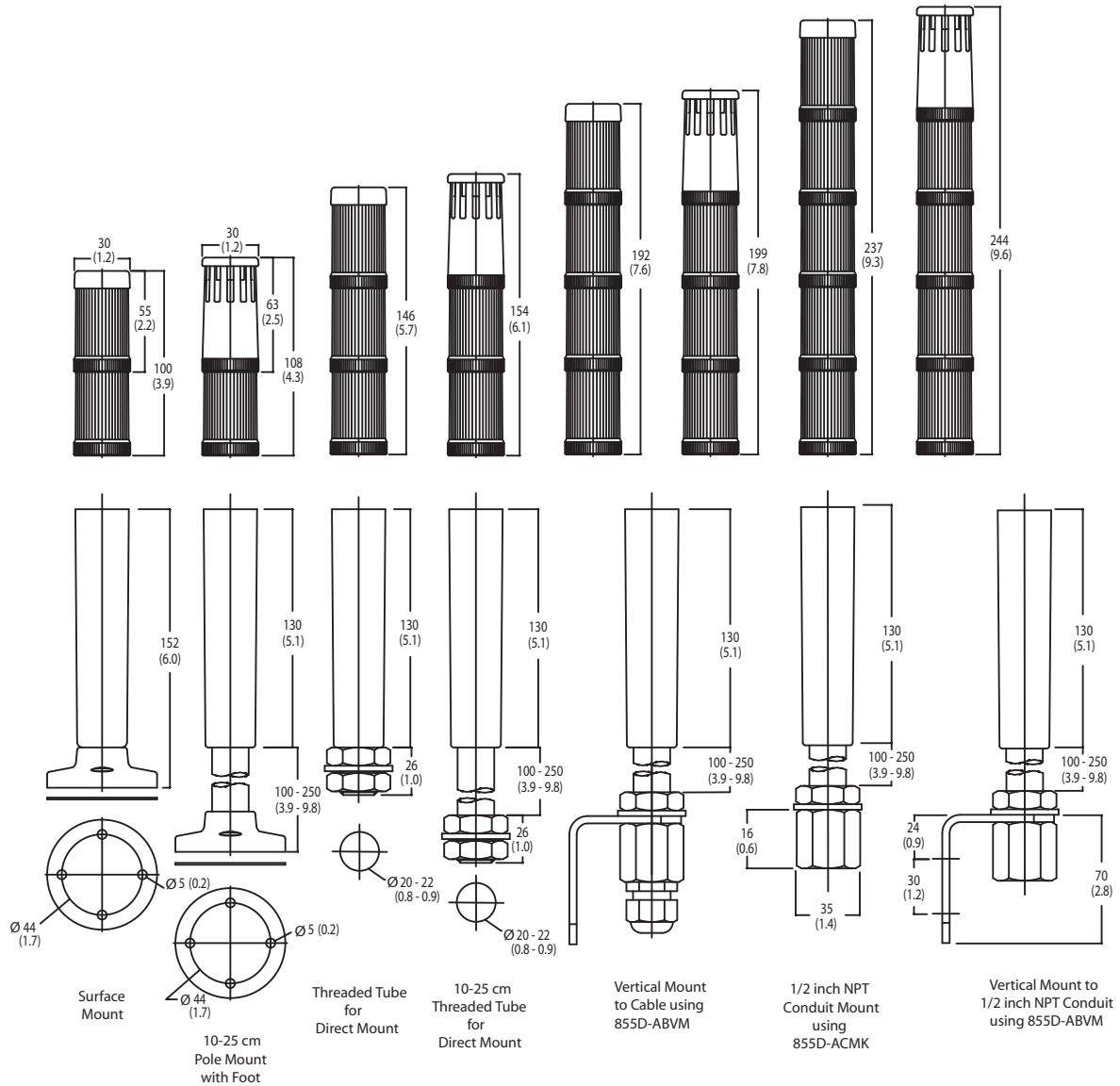
- UL 508
- CSA C22.2 No. 14
- EN/IEC 60947-1
- EN/IEC 60947-5-1

Certifications

- c-UL-us Listed (File No. E14840, Guides NKCR, NKCR7)

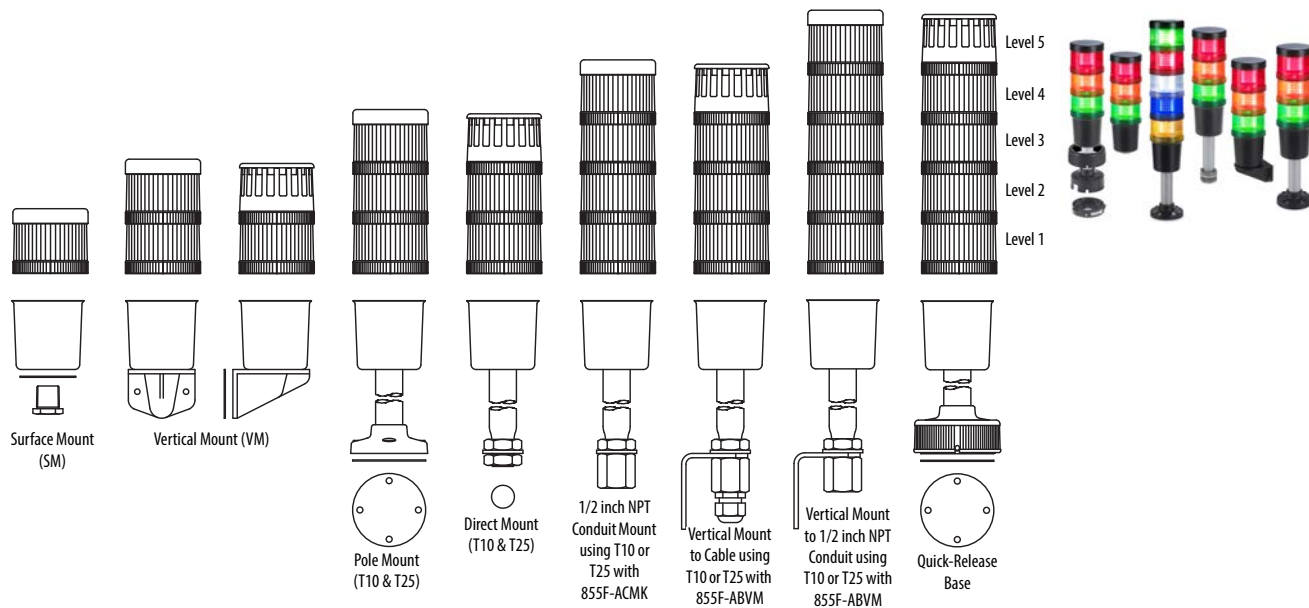
Approximate Dimensions — Bulletin 855D

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



Bulletin 855F — 70 mm Compact Control Tower Stack Lights

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



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
						(Level 1, e+f)		(Level 2, e+f)		(Level 3, e+f)		(Level 4, e+f)		(Level 5, e+f)	

a	
Base Type	
Code	Description
SB	Surface mount with 1/2 in. NPT threaded connector and mounting nut
P10	10 cm aluminum pole mount with foot
P25	25 cm aluminum pole mount with foot
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

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

c	
Housing Color	
Code	Description
B	Black

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

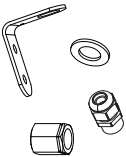
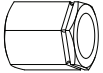
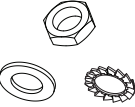
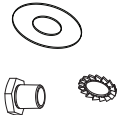


d	
Voltage	
Code	Description
24	24V AC/DC
10	120V AC
20	240V AC

e	
Module Type ^{(1) (2)}	
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 ⁽³⁾

f	
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 — Bulletin 855F

	Description	Cat. No.
	<p>Vertical Mount Kit Includes the following:</p> <ul style="list-style-type: none"> • L-bracket • Thread adapter (G1/2 in. to 1/2 in. NPT) • Black cable gland (1/2 in. NPT) • Plastic washer 	855F-ABVM
	<p>Conduit Mount Kit G1/2 in. to 1/2 in. NPT thread adapter</p>	855F-ACMK
	<p>Direct Mount Kit Includes the following:</p> <ul style="list-style-type: none"> • G1/2 in. nut • Plastic washer • Metal lock washer 	855F-ARDM
	<p>Surface Mount Kit Includes the following:</p> <ul style="list-style-type: none"> • Threaded connector (1/2 in. NPT) • Surface-mount gasket • Lock washer 	855F-ASMK
	<p>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)</p>	855T-AMSG
	<p>Field-installable 4-pin DC Micro style terminal chamber. For additional chamber style terminals, see https://ab.rockwellautomation.com/Connection-Devices/Cables-and-Cordsets.</p>	871A-TS4-DM

Specifications — Bulletin 855F

Table 51 - Mechanical

Standard Bases		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.	
		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 52 - 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 53 - 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 54 - Estimated Light Output ⁽¹⁾

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 55 - 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 56 - 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 57 - 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 58 - Flashing Frequency (Light Only Modules)

Device	Flashing Frequency
Flashing LED Modules	Approximately 2 Hz

Table 59 - Decibel Rating (Sound Modules) ⁽¹⁾

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 60 - Leakage Current Impact

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

Standards Compliance

- UL 508
- CSA C22.2 No. 14
- EN/IEC 60947-1
- EN/IEC 60947-5-1

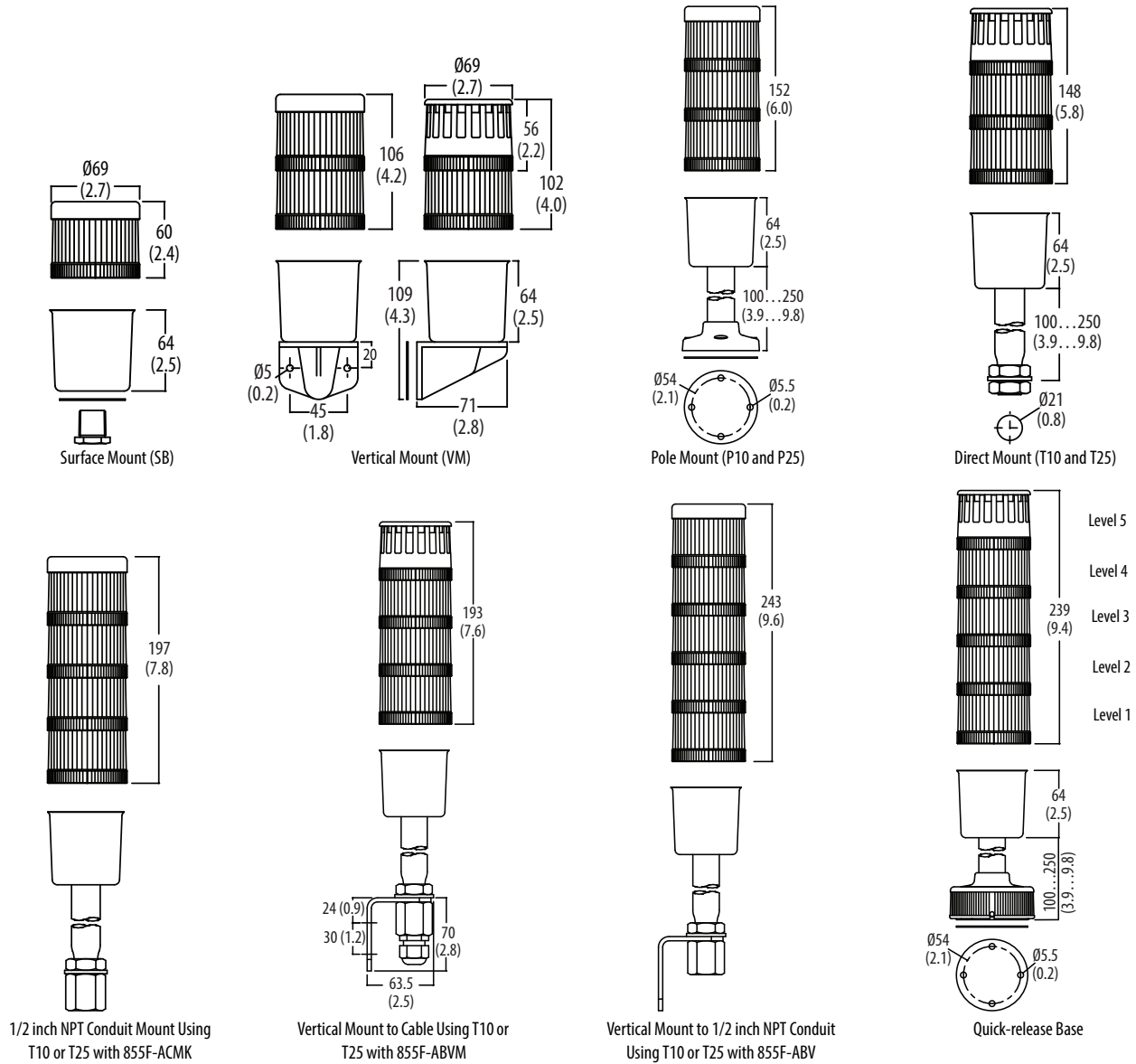
Certifications

- c-UL-us Listed (File No. E14840, Guides NKCR, NKCR7)
- CE Marked

Approximate Dimensions — Bulletin 855F

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

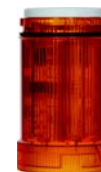
Assembled Stacks



Bulletin 854J — 40 mm Control Tower Stack Lights

Light Modules

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



Steady LED Module

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

b	
Light Module Type	
Code	Description
XN	Steady no lamp ⁽³⁾
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	Illumination Type	Cat. No.
0...250V AC/DC	Green	Steady incandescent (no lamp included; must be ordered separately)	854J-00XN3
	Red		854J-00XN4
24V AC/DC	Green	Steady LED	854J-24TL3
		Flashing LED	854J-24GL3
		Strobe LED	854J-24BL3
	Red	Steady LED	854J-24TL4
		Flashing LED	854J-24GL4
		Strobe LED	854J-24BL4
	Amber	Steady LED	854J-24TL5
		Flashing LED	854J-24GL5
		Strobe LED	854J-24BL5
120V AC	Green	Steady LED	854J-10TL3
		Flashing LED	854J-10GL3
		Strobe LED	854J-10BL3
	Red	Steady LED	854J-10TL4
		Flashing LED	854J-10GL4
		Strobe LED	854J-10BL4
	Amber	Steady LED	854J-10TL5
		Flashing LED	854J-10GL5
		Strobe LED	854J-10BL5
240V AC	Green	Steady LED	854J-20TL3
		Flashing LED	854J-20GL3
		Strobe LED	854J-20BL3
	Red	Steady LED	854J-20TL4
		Flashing LED	854J-20GL4
		Strobe LED	854J-20BL4
	Amber	Steady LED	854J-20TL5
		Flashing LED	854J-20GL5
		Strobe LED	854J-20BL5

Sound Modules

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



Sound Module

854J – $\frac{B}{a}$ $\frac{10}{b}$ $\frac{SA3}{c}$

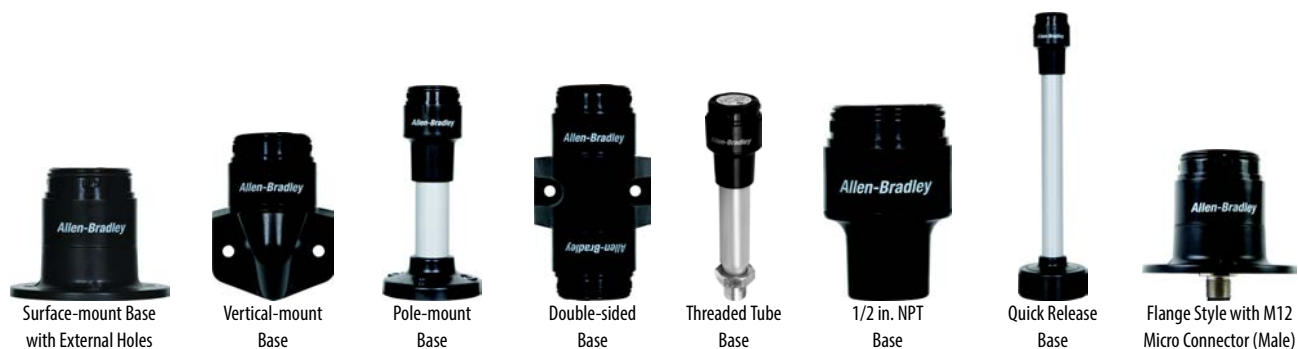
a	
Housing Color	
Code	Description
B	Black

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



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

a	
Housing Color	
Code	Description
B	Black

b	
Base Type ⁽¹⁾	
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 aluminum pole mount base
PM25	25 cm aluminum pole mount base
T10	10 cm threaded tube (M20)
T25	25 cm threaded tube (M20)
DS	Double-sided base ⁽²⁾
Q10	10 cm quick release base
Q25	25 cm quick release base
SFQD5	Flange-style base with M12 (5-pin DC) micro connector ^{(3) (4) (5) (6) (7)}

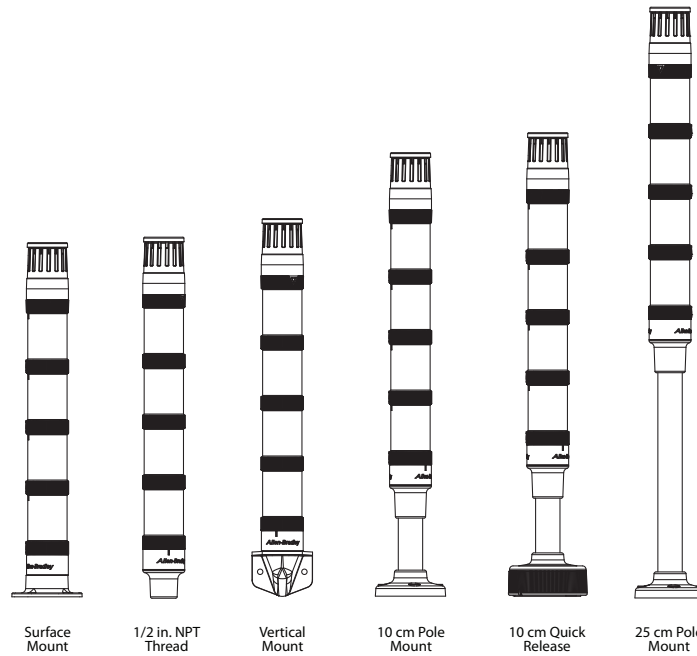
c	
Cap Option	
Code	Description
C	Cap included

- (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 divided in two groups up to five levels each.
- (3) For vertical mounting of the base use catalog number 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 (catalog number 854J-ABBE).
- (7) Maximum 250V AC/DC UL / 60V AC/DC IEC.

Housing Color	Base Type	Cat. No. ⁽¹⁾
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 aluminum pole mount	854J-BPM10C
	25 cm aluminum pole mount	854J-BPM25C
	10 cm threaded tube (M20)	854J-BT10C
	25 cm threaded tube (M20)	854J-BT25C
	Double-sided base	854J-BDSC
	10 cm quick release base	854J-BQ10C
	25 cm 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



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⁽¹⁾	
Code	Description
NPT	1/2 in. NPT
VM	Vertical mount
SF	Surface mount —external mounting holes
P10	10 cm aluminum pole mount with foot
P25	25 cm aluminum pole mount with foot
Q10	10 cm quick release mount pole
Q25	25 cm 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 ⁽²⁾
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 in Table e. They must be located in the top position of the stack.

Accessories — Bulletin 854J

Table 61 - Accessories





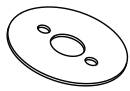








	Description	Cat. No.	
	Incandescent Lamps (4 W)	24V AC/DC	854J-L24
		120V AC	854J-L10
		240V AC	854J-L20
	Incandescent lamp removal tool	800T-N82	
	10 cm plastic base extension, black	854J-ABBE	
	Plastic vertical bracket for pole foot, black (can be used with Bulletin 855T, 855E, 854K, and 855F pole 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	
	Click to enlarge - 854J-ABCAP_prod_4c 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 62 - 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-BSFQD5C 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 (order quantity of 1 and receive bag of five gaskets)	855D-AQG
	Quick release mounting base with gasket	855D-AQMB

Specifications — Bulletin 854J

Table 63 - Mechanical

Standard Bases		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.	
		Shock [G]	Vibration [G]
Surface-mount Base or 10 cm Aluminum Pole Base	1 Module Stack	50	5
	3 Module Stack	50	5
	5 Module Stack	40	5
Vertical Base or 25 cm Aluminum Pole Base	1 Module Stack	55	5
	3 Module Stack	55	5
	5 Module Stack	35	5
Recommended Wire Sizes		0.2...1.5 mm ² (24...16 AWG)	
Recommended Terminal Torque		Screwless terminal blocks	

Table 64 - 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 ⁽¹⁾	
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 65 - 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 66 - 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 67 - 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 68 - 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 69 - 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	32

Table 70 - 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 71 - Decibel Rating (Sound Modules) ⁽¹⁾

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 72 - Leakage Current Impact

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

Standards Compliance

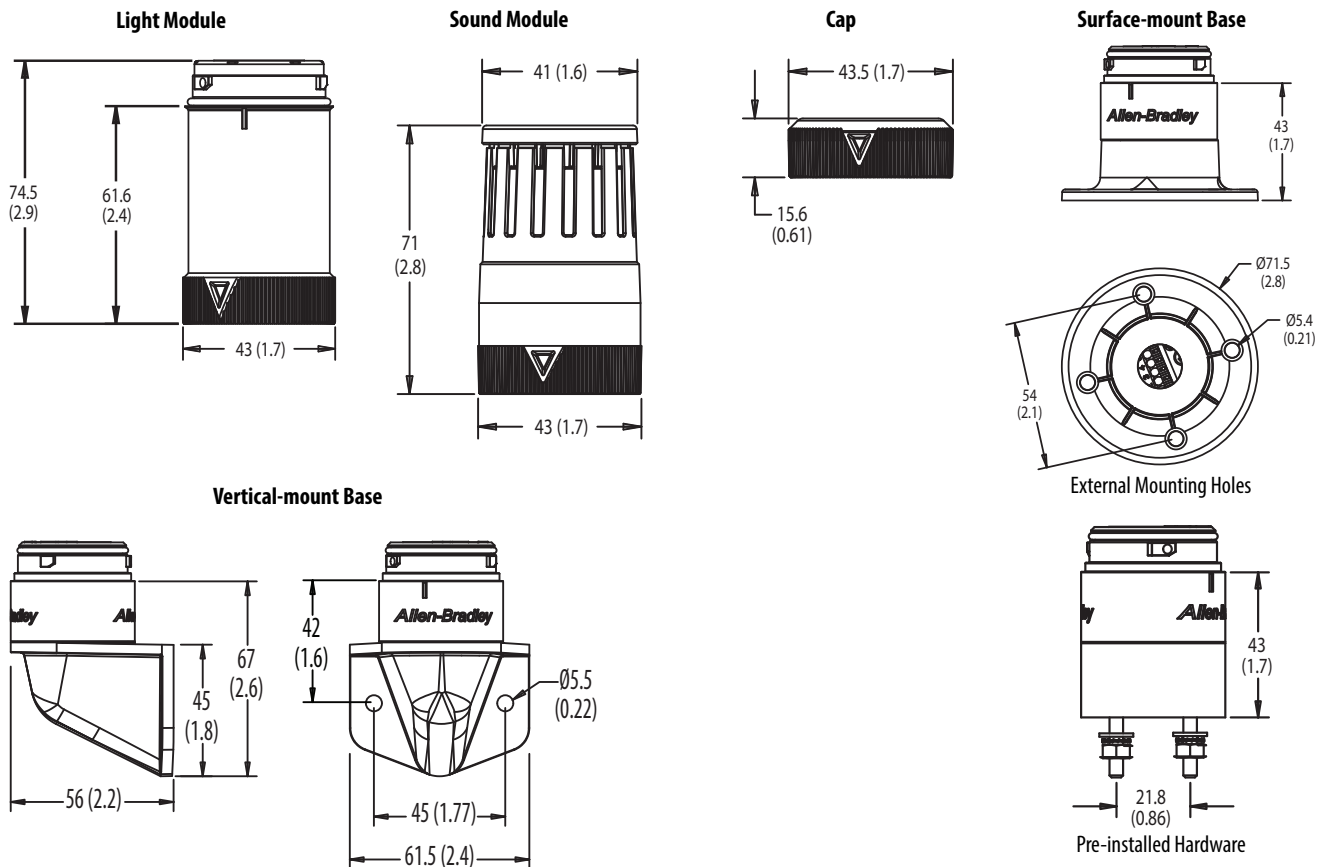
- UL 508
- CSA C22.2 No. 14
- EN/IEC 60947-1
- EN/IEC 60947-5-1

Certifications

- cULus Listed (File No. E14840, Guides NKCR, NKCR7)
- CE Marked
- RoHS Compliant

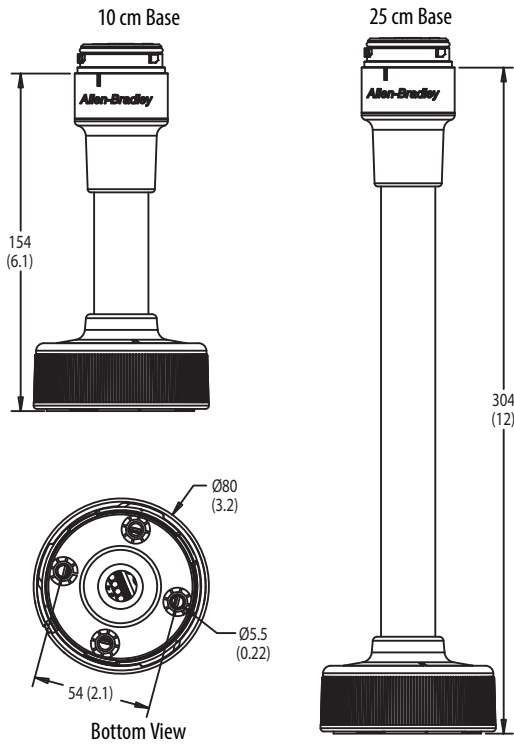
Approximate Dimensions — Bulletin 854J

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

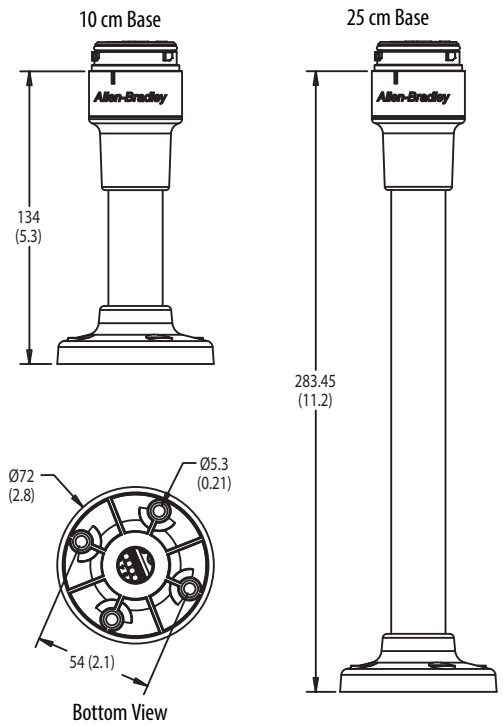


Dimensions in millimeters (inches). Dimensions are not intended to be used for manufacturing purposes.

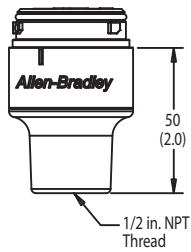
Quick-release Base



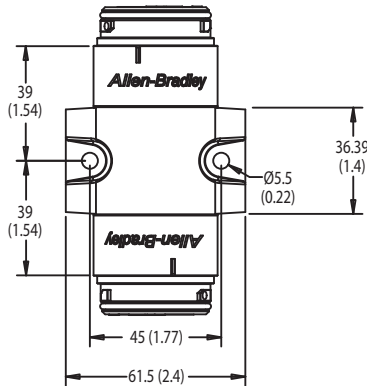
Pole-mount Base



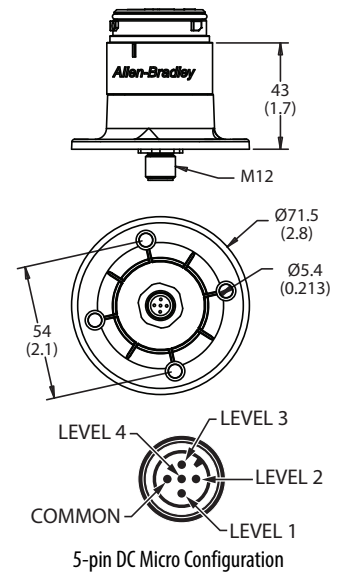
1/2 in. NPT Thread Base



Double-sided Base



Flange-style Base with M12 Micro Connector (Male)



Bulletin 855E — 50 mm Control Tower Stack Lights

Light Modules



Flashing Incandescent

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

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

b	
Light Module Type	
Code	Description
XN	Steady no lamp ⁽¹⁾
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

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

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 – $\frac{B}{a}$ $\frac{VM}{b}$ $\frac{C}{c}$

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 tube mount
VM	Vertical mount
PM10	10 cm aluminum pole-mount base
PM25	25 cm aluminum pole-mount base
PM40	40 cm aluminum pole-mount base
PM60	60 cm aluminum pole-mount base
PM80	80 cm aluminum pole-mount base
MM10	10 cm quick-release base
MM25	25 cm quick-release base
MM40	40 cm quick-release base

c	
Cap Option ⁽¹⁾	
Code	Description
Blank	No cap
C	Cap included

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


Accessories — Bulletin 855E/855T

Table 73 - Lamps

		Description	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
	LED Lamps for Socket-Mounted Modules (For Industrial Use Only)		Color
	12V AC/DC	Red	855E-LL12R
		Green	855E-LL12G
		Amber	855E-LL12A
		Blue	855E-LL12B
		Yellow	855E-LL12Y
		White ⁽¹⁾	855E-LL12W
	24V AC/DC	Red	855E-LL24R
		Green	855E-LL24G
		Amber	855E-LL24A
		Blue	855E-LL24B
		Yellow	855E-LL24Y
		White ⁽¹⁾	855E-LL24W
	120V AC	Red	855E-LL10R
		Green	855E-LL10G
		Amber	855E-LL10A
		Blue	855E-LL10B
		Yellow	855E-LL10Y
		White ⁽¹⁾	855E-LL10W
	240V AC	Red	855E-LL20R
		Green	855E-LL20G
		Amber	855E-LL20A
		Blue	855E-LL20B
		Yellow	855E-LL20Y
White ⁽¹⁾		855E-LL20W	

(1) White LED lamps are to be used with a Clear lens option.







Table 74 - Caps

		Description	Color	Cat. No.
	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.	Black	855E-ABCAP ⁽¹⁾	
		Gray	855E-AGCAP ⁽¹⁾	
		Black	855T-ABCAP ⁽²⁾	
		Gray	855T-AGCAP ⁽²⁾	
Module Securing Screws (Bag of 5)			855E-ASC ⁽¹⁾	

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






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

Table 75 - 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 ⁽¹⁾
		855T-ALSG ⁽²⁾
	Surface Mount Gasket Replacement flat gasket is to be placed between the mounting surface and the surface mount base. (Package quantity = 5)	855E-ASFG ⁽³⁾
		855T-ASFG ⁽⁴⁾
	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-AVTG
	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, & CB bases) only.
- (4) For use with Bulletin 855T Control Tower stack lights (BSB and BCB bases) only.

Table 76 - Pole Connection Boxes⁽¹⁾, 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 77 - 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 855T and 855E pole mount base and for use with 855T surface mount base.	855T-AVM

Specifications — Bulletin 855E

Table 78 - Mechanical

Standard Bases		Based on the weight and style of mounting; tower lights are subject to damage from shock and vibration. Listed below are reference guidelines for maximum acceptable conditions.	
		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 Sizes		0.5...1.5 mm ² (22...16 AWG)	
Recommended Terminal Torque		0.87 N·m (7 lb·in)	

Table 79 - 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 ⁽¹⁾	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 80 - 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 81 - 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 82 - 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 83 - 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 ^{(1) (2)}	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 84 - 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 85 - 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 86 - Decibel Rating (Sound Modules) ⁽¹⁾

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 87 - Leakage Current Impact

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

Standards Compliance

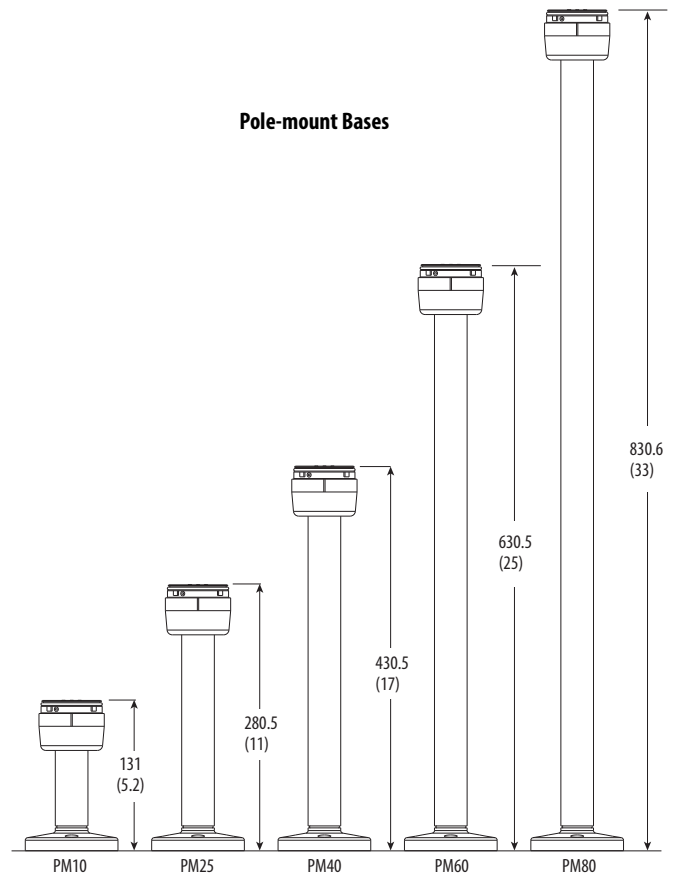
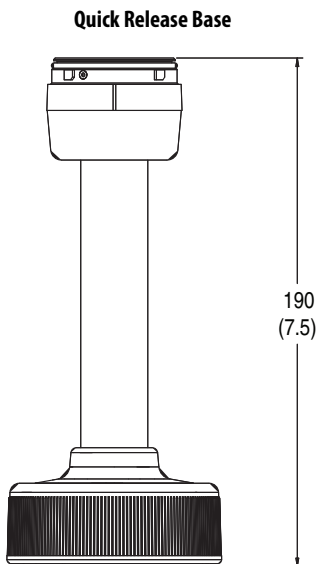
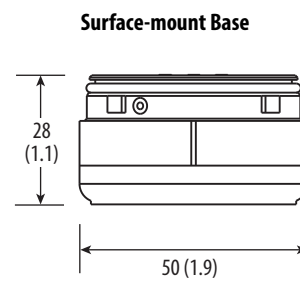
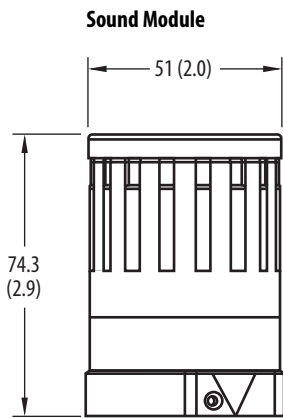
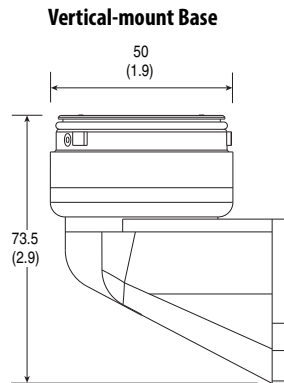
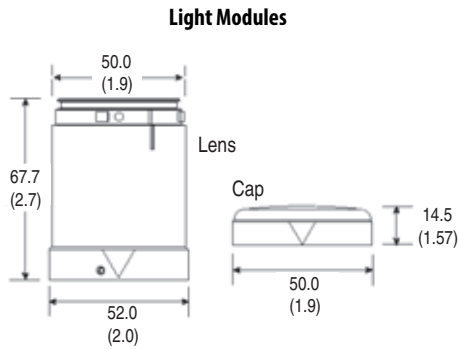
- UL 508
- EN/IEC 60947-1
- CSA C22.2 No. 14
- EN/IEC 60947-5-1

Certifications

- c-UL-us Listed (File No. E14840, Guides NKCR, NKCR7)
- CE Marked

Approximate Dimensions — Bulletin 855E

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



Bulletin 854K — 60 mm Control Tower Stack Lights

Light Modules

854K – $\frac{10}{a}$ $\frac{TL}{b}$ $\frac{4}{c}$



Steady LED Module

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

b	
Light Module Type	
Code	Description
XN	Steady no lamp ⁽³⁾
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.
- (3) Incandescent lamps (catalog numbers 854J-L24, 854J-L10, and 854J-L20) must be purchased separately.

Voltage	Color	Illumination Type	Cat. No.
0...250V AC/DC	Green	Steady incandescent (no lamp included; must be ordered separately)	854K-00XN3
	Red		854K-00XN4
24V AC/DC	Green	Steady LED	854K-24TL3
		Flashing LED	854K-24GL3
		Strobe LED	854K-24BL3
	Red	Steady LED	854K-24TL4
		Flashing LED	854K-24GL4
		Strobe LED	854K-24BL4
	Amber	Steady LED	854K-24TL5
		Flashing LED	854K-24GL5
		Strobe LED	854K-24BL5
120V AC	Green	Steady LED	854K-10TL3
		Flashing LED	854K-10GL3
		Strobe LED	854K-10BL3
	Red	Steady LED	854K-10TL4
		Flashing LED	854K-10GL4
		Strobe LED	854K-10BL4
	Amber	Steady LED	854K-10TL5
		Flashing LED	854K-10GL5
		Strobe LED	854K-10BL5
240V AC	Green	Steady LED	854K-20TL3
		Flashing LED	854K-20GL3
		Strobe LED	854K-20BL3
	Red	Steady LED	854K-20TL4
		Flashing LED	854K-20GL4
		Strobe LED	854K-20BL4
	Amber	Steady LED	854K-20TL5
		Flashing LED	854K-20GL5
		Strobe LED	854K-20BL5

Sound Modules

Sound modules have continuous and pulsing tones selectable via DIP switch. Maximum sound output is 90 dB(A) at 1 m (3.3 ft) and the volume is adjustable.



Sound Module

854K - $\frac{B}{a}$ $\frac{10}{b}$ $\frac{SA3}{c}$

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



854K – $\frac{B}{a} \frac{VM}{b} \frac{C}{c}$

a	
Housing Color	
Code	Description
B	Black

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

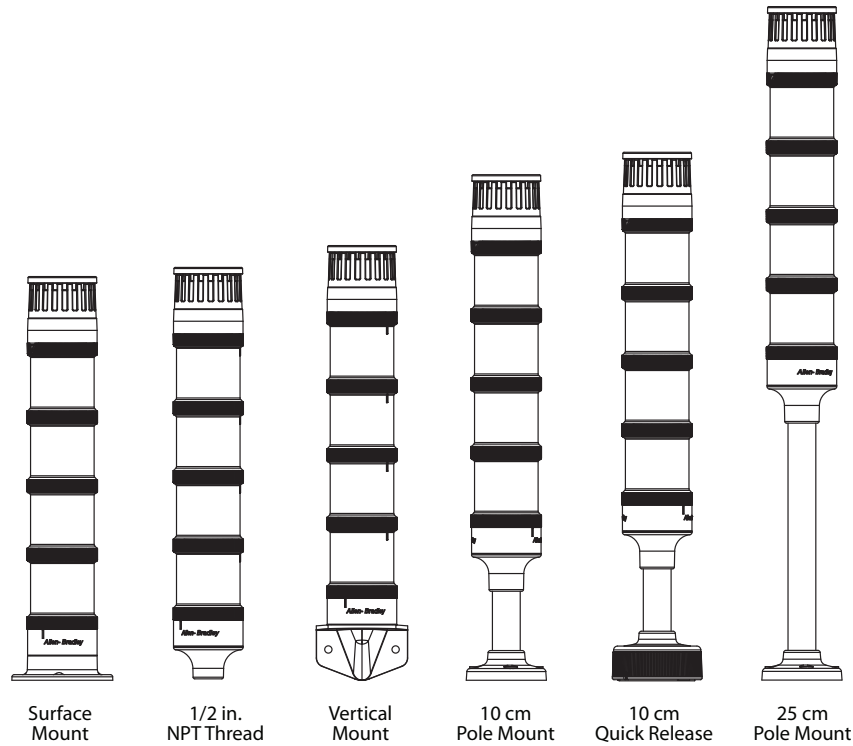
c	
Cap Option	
Code	Description
C	Cap included

- (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 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. ⁽¹⁾
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 aluminum pole mount	854K-BPM10C
	25 cm aluminum pole mount	854K-BPM25C
	10 cm threaded tube (M20)	854K-BT10C
	25 cm threaded tube (M20)	854K-BT25C
	Double-sided base	854K-BDSC
	10 cm quick release base	854K-BQ10C
	25 cm quick release base	854K-BQ25C
	Flange-style base with M12 (5-pin DC) micro connector	854K-BSFQD5C

(1) All listed bases include a cap.

Preconfigured Tower Lights, 1...5 Modules



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 ⁽¹⁾	
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 ⁽²⁾
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 in Table c. They must be in the top position of the stack.

Accessories — Bulletin 854K

Table 88 - Accessories







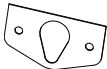








	Description		Cat. No.
	Incandescent Lamps (4 W)	24V AC/DC	854J-L24
		120V AC	854J-L10
		240V AC	854J-L20
	Incandescent lamp removal tool		800T-N82
	10 cm plastic base extension, black		854K-ABBE
	O-rings for lenses		854K-ALSG
	Gasket for SH surface mount bases		854K-ASG2
	Upper base with terminal block, 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 1 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 — Bulletin 854K

Table 90 - Mechanical

Standard Bases		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.	
		Shock [G]	Vibration [G]
Surface-mount Base with external holes or 10 cm Aluminum Pole Base	1 Module Stack	50	5
	3 Module Stack	50	5
	5 Module Stack	40	5
Vertical Base or 25 cm Aluminum Pole Base	1 Module Stack	55	5
	3 Module Stack	55	5
	5 Module Stack	35	5
Recommended Wire Sizes		0.2...1.5 mm ² (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 ⁽¹⁾	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) ⁽¹⁾

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.

Standards Compliance

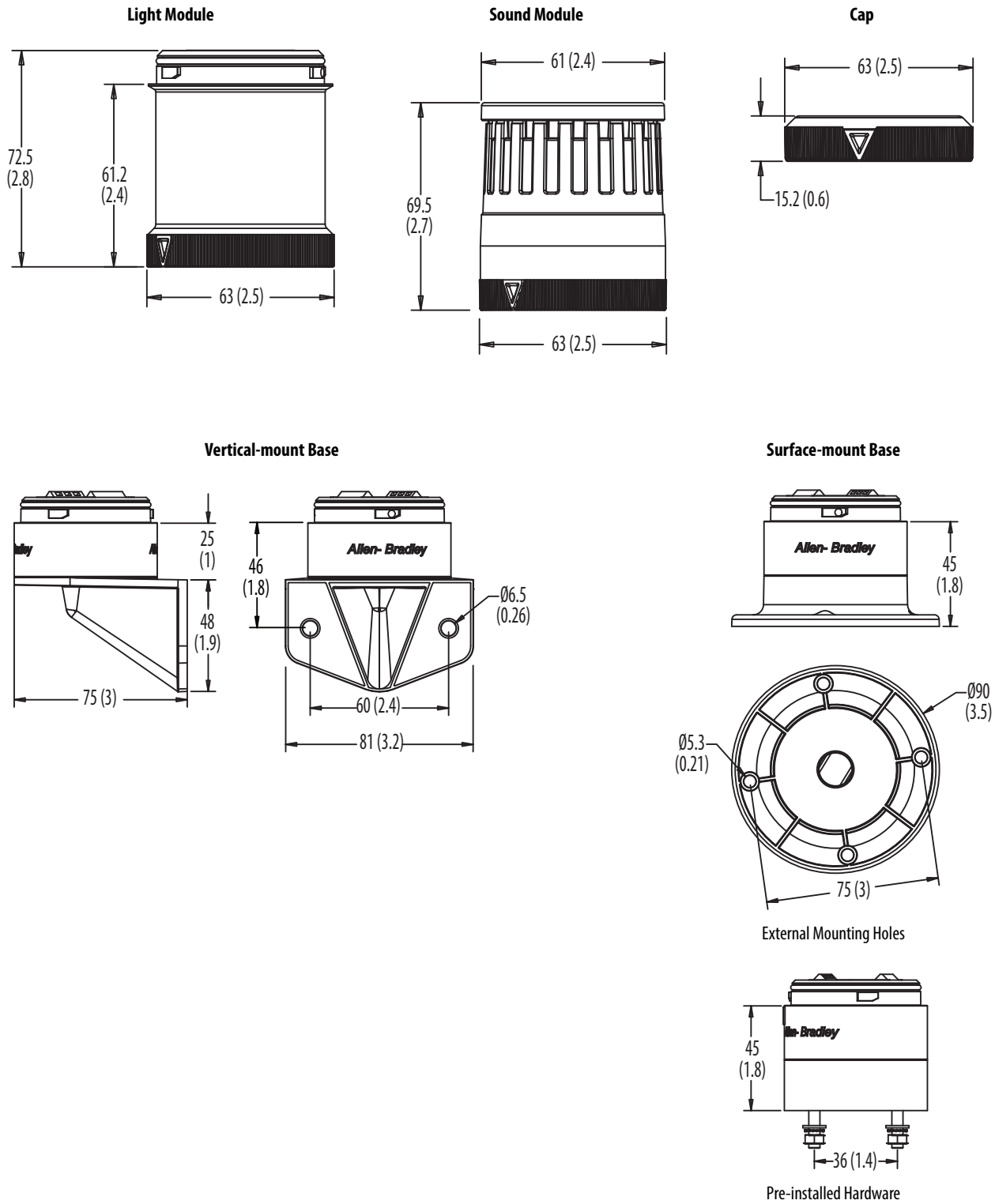
- UL 508
- CSA C22.2 No. 14
- EN/IEC 60947-1
- EN/IEC 60947-5-1

Certifications

- c-UL-us Listed (File No. E14840, Guides NKCR, NKCR7)
- CE Marked
- RoHS Compliant

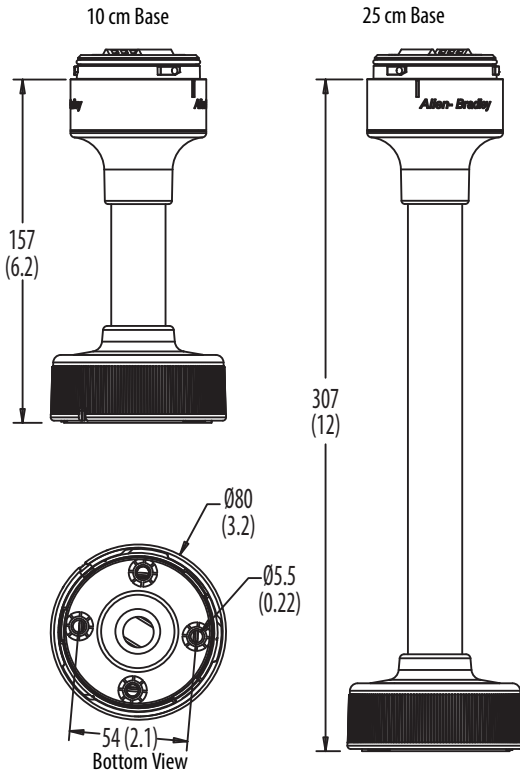
Approximate Dimensions — Bulletin 854K

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

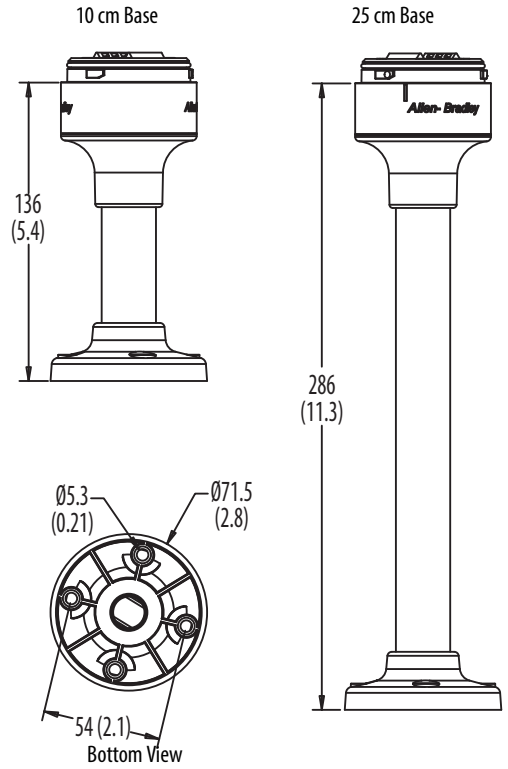


Dimensions in millimeters (inches). Dimensions are not intended to be used for manufacturing purposes.

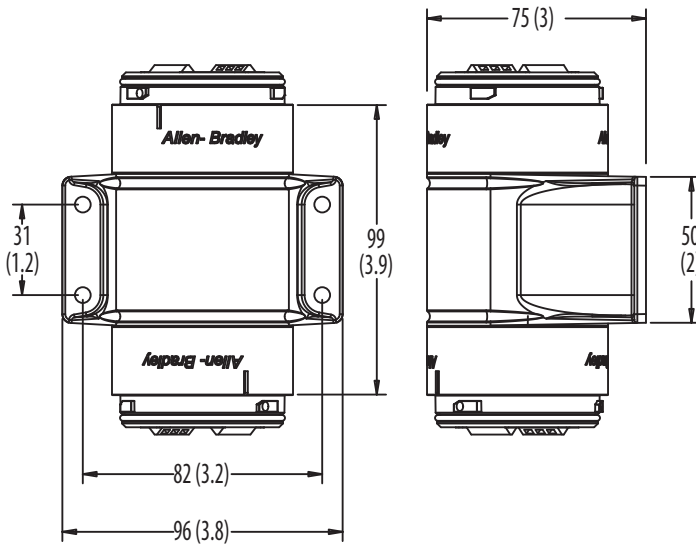
Quick-release Base



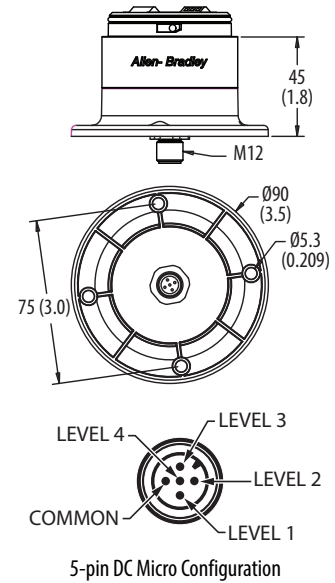
Pole-mount Bases



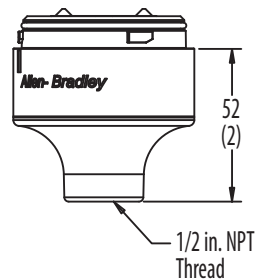
Double-sided Base



Flange-style Base with M12 Micro Connector (Male)



1/2 in. NPT Thread Base



Bulletin 855T — 70 mm Control Tower Stack Lights

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 ⁽¹⁾
DN	Steady incandescent
FN	Flashing incandescent
TL	Steady LED
GL	Flashing LED
RL	Rotating LED, simulated with fixed LEDs ⁽²⁾
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 which 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 ^{(1) (2)}	
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
- Adjustable volume from 85...103 dB at 1 m (3.3 ft)
- Up to 15 tones
- 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 ⁽¹⁾
TA1	Dual-tone sound module with 15 sets of dual-tone combinations ⁽²⁾

(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

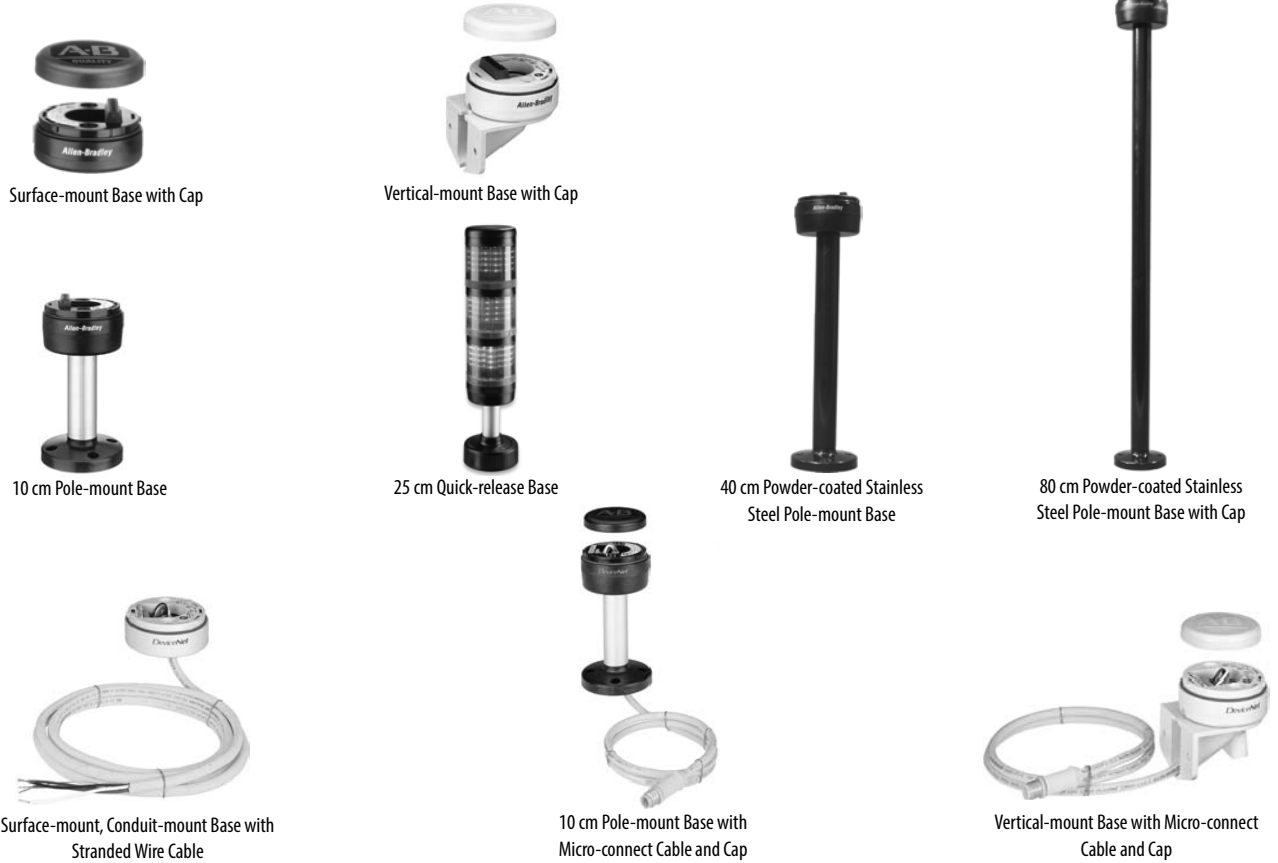
855T – $\frac{G}{a}$ $\frac{24}{b}$ $\frac{TA2}{c}$

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

Standard and DeviceNet™ Stack Light Bases



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 ⁽¹⁾
DS2	DeviceNet stranded wire connect with 2 m (6.6 ft) cable ⁽¹⁾
DL1	DeviceNet mini-connect with 1 m (3.3 ft) cable ⁽¹⁾

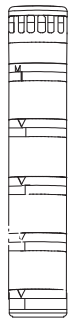
b	
Housing Color	
Code	Description
B	Black
G	Gray

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 aluminum pole mount base
PM25	25 cm aluminum pole mount base
PM40	40 cm aluminum pole mount base
SPM10	10 cm stainless steel pole mount ⁽²⁾
SPM25	25 cm stainless steel pole mount ⁽²⁾
SPM40	40 cm stainless steel pole mount ⁽²⁾
SPM60	60 cm stainless steel pole mount ⁽²⁾
SPM80	80 cm stainless steel pole mount ⁽²⁾
MM10	10 cm quick release base
MM25	25 cm quick release base
MM40	40 cm quick release base

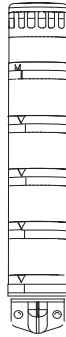
d	
Cap Option	
Code	Description
Blank	No cap
C	Cap included

(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.

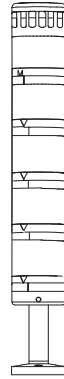
Pre-configured Control Tower Lights, 1...5 Modules



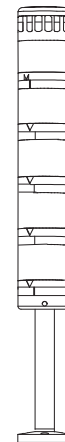
Surface Mount



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
						(Level 1, e+f)		(Level 2, e+f)		(Level 3, e+f)		(Level 4, e+f)		(Level 5, e+f)	

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

b	
Network Options ⁽¹⁾	
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

c	
Housing Color	
Code	Description
B	Black
G	Gray

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

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

e	
Module Type	
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

f	
Lens Color/Sound	
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 always 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 — Bulletin 855T

See [Accessories — Bulletin 855E/855T on page 59](#).

Specifications — Bulletin 855T

Table 101 - Mechanical

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.	
			Shock [G]	Vibration [G]
Standard Bases	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
DeviceNet Bases	Surface-mount Base or 10 cm Aluminum Pole Base	1 module stack	50	5
		3 module stack	45	1.5
		5 module stack	35	0.75
	Vertical Base or 25 cm Aluminum Pole Base	1 module stack	50	3.5
		3 module stack	30	1.25
		5 module stack	20	0.5
Recommended Wire Sizes			0.5...2.5 mm ² (22...14 AWG)	
Recommended Terminal Torque			0.8 N•m (7 lb•in)	

Table 102 - 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 103 - 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	CPR Chlorinated Polyethylene
DeviceNet Cable Connectors	Santoprene®

Table 104 - Light Output

Device		Light Output			
		12V AC/DC	24V AC/DC	120V ACC	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		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 105 - 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 106 - 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 ^{(1) (2)}	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 107 - 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 108 - 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
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	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
Flashing and Tone Pulsing Frequencies (Light Modules/with Sound Set at Pulsing Tone)	
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 109 - Decibel Rating (Sound Modules)

Device	Decibel Rating ⁽¹⁾
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 110 - 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 111 - DeviceNet Bases

Attribute	Value
Communication Rate Options	125K, 250K, 500K, Autobaud

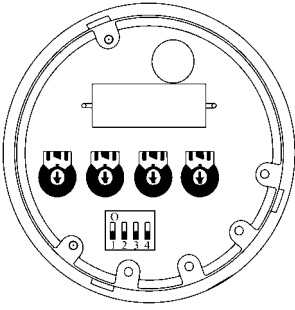


























Standards Compliance

- UL 508
- CSA C22.2 No. 14
- EN/IEC 60947-1
- EN/IEC 60947-5-1

Certifications

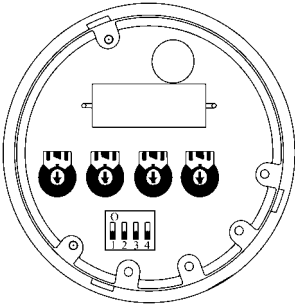











































- c-UL-us Listed (File No. E14840, Guides NKCR, NKCR7)
- CE Marked

Transducer Style Single-circuit Sound Module (SA1)

	DIP Switch Position	Tone Description		Speed [Hz]	Upper Frequency [Hz]	Lower Frequency [Hz]	Volume [dB(A)]
 <p>Adjustable Sound Settings</p>		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
 <p>Rotated View of Sound Settings</p>		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		76...95
		Two-Tone Gong		2...4 s	550 440		75...93
		Gong		1...3 s	(1)	500...1500	75...93

(1) Set to maximum (+).

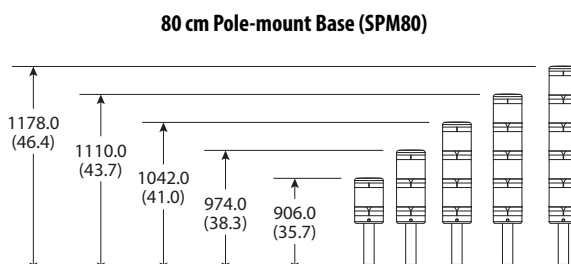
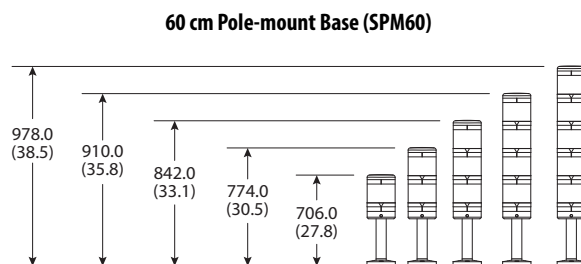
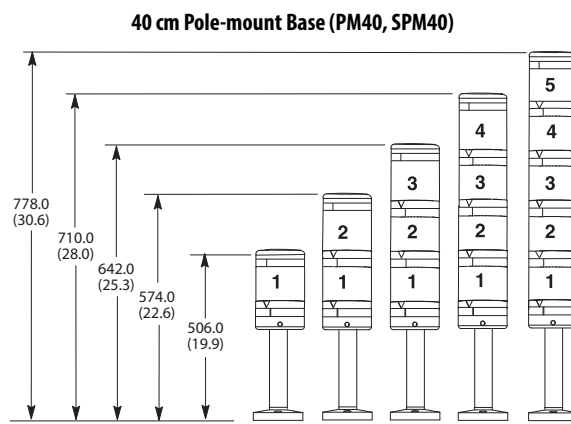
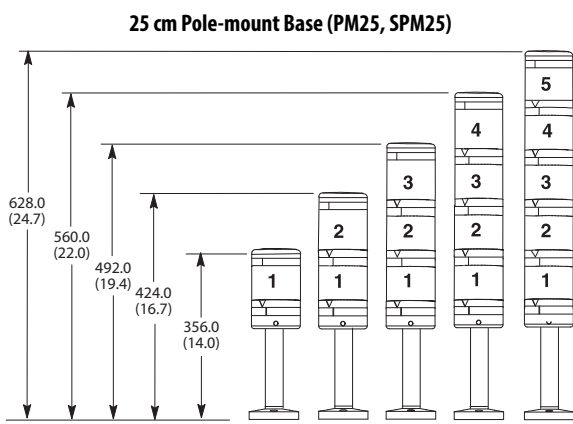
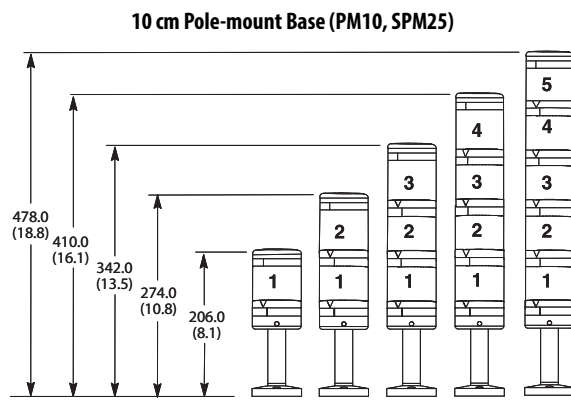
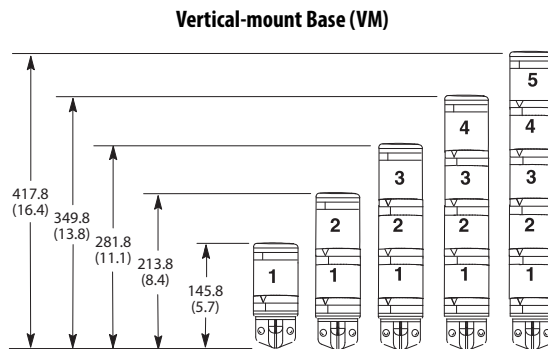
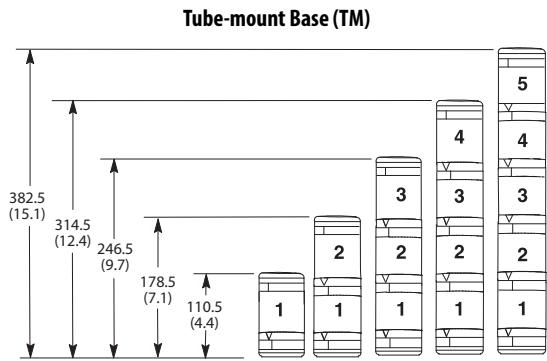
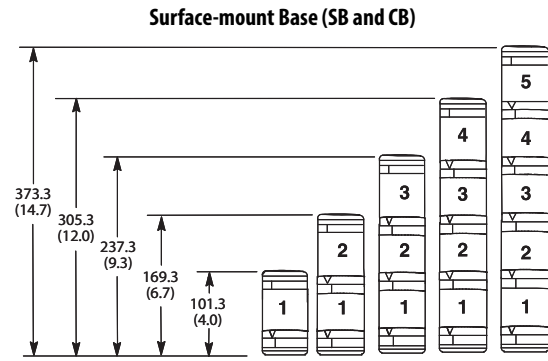
Transducer Style Dual-circuit Sound Module (TA1)

		DIP Switch Position	Tone A		Tone B	
 <p>Adjustable Sound Settings</p>		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		
 <p>Volume Lower Freq. Upper Freq. Speed</p> <p>Rotated View of Sound Settings</p>		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 — Bulletin 855T

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

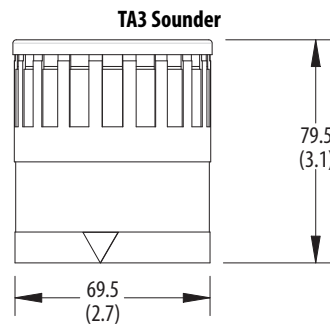
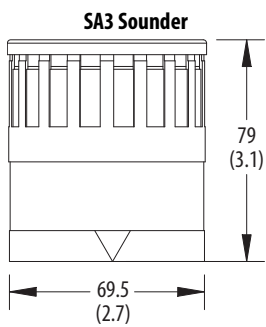
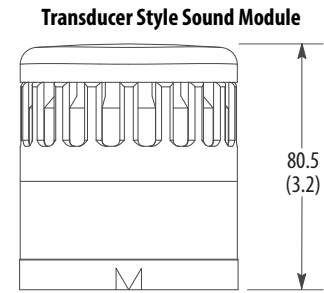
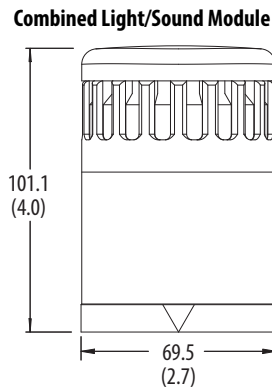
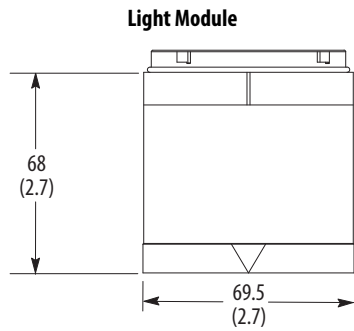
Assembled Control Tower Lights — Light Modules Only or Light Modules with Sound Module on Top Position ⁽¹⁾



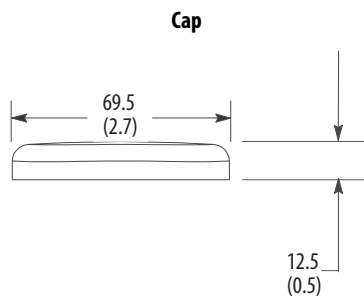
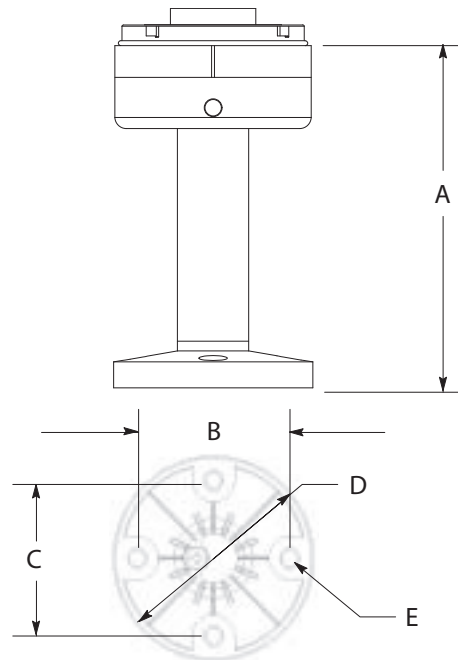
(1) If a combined light/sound module is used, add 21.5 mm (0.8 in.) to vertical dimensions.

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

Component and Accessory Dimensions

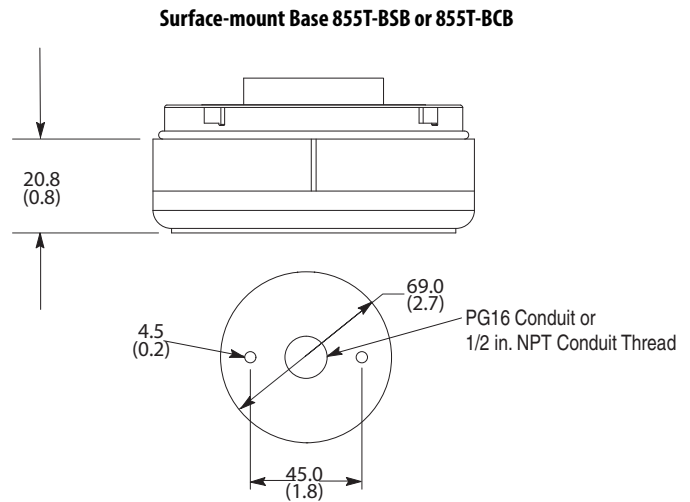
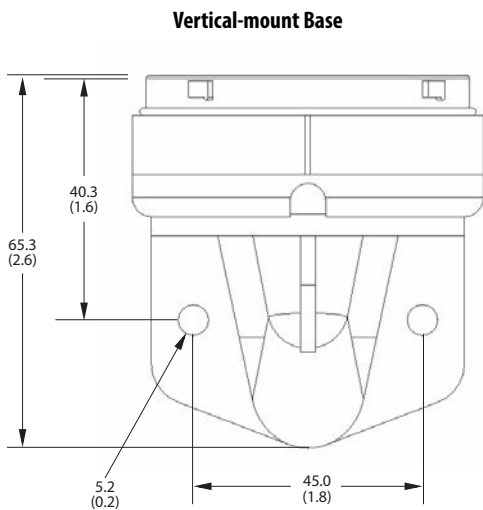
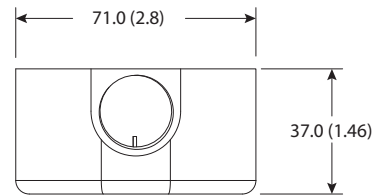
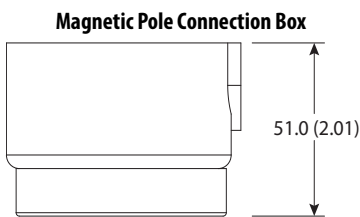
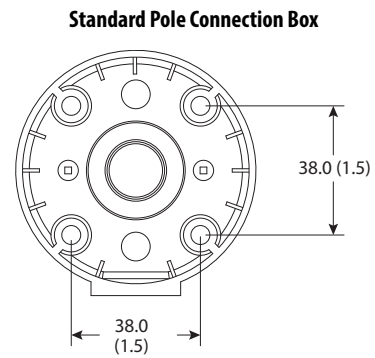
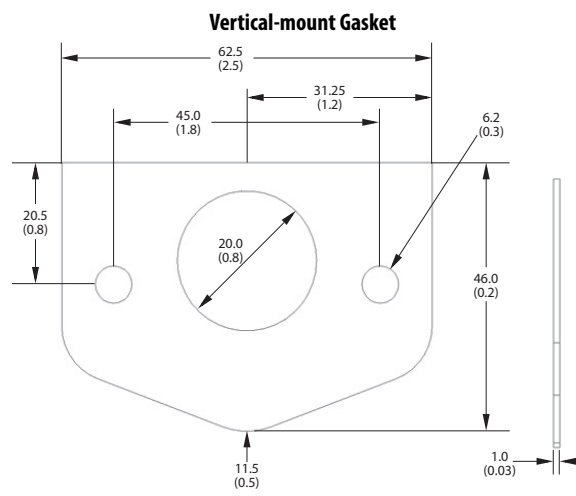
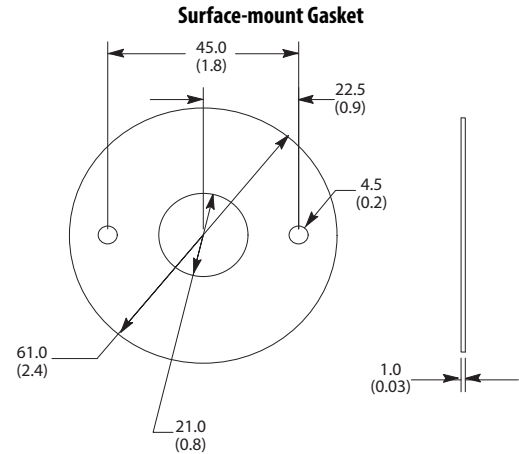
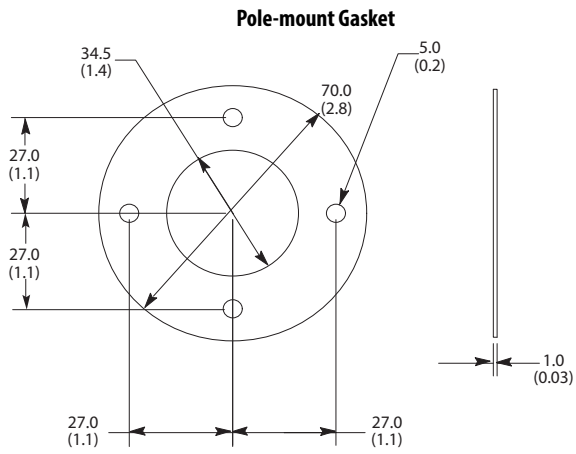


Pole-mount Base (Aluminum or Stainless Steel)



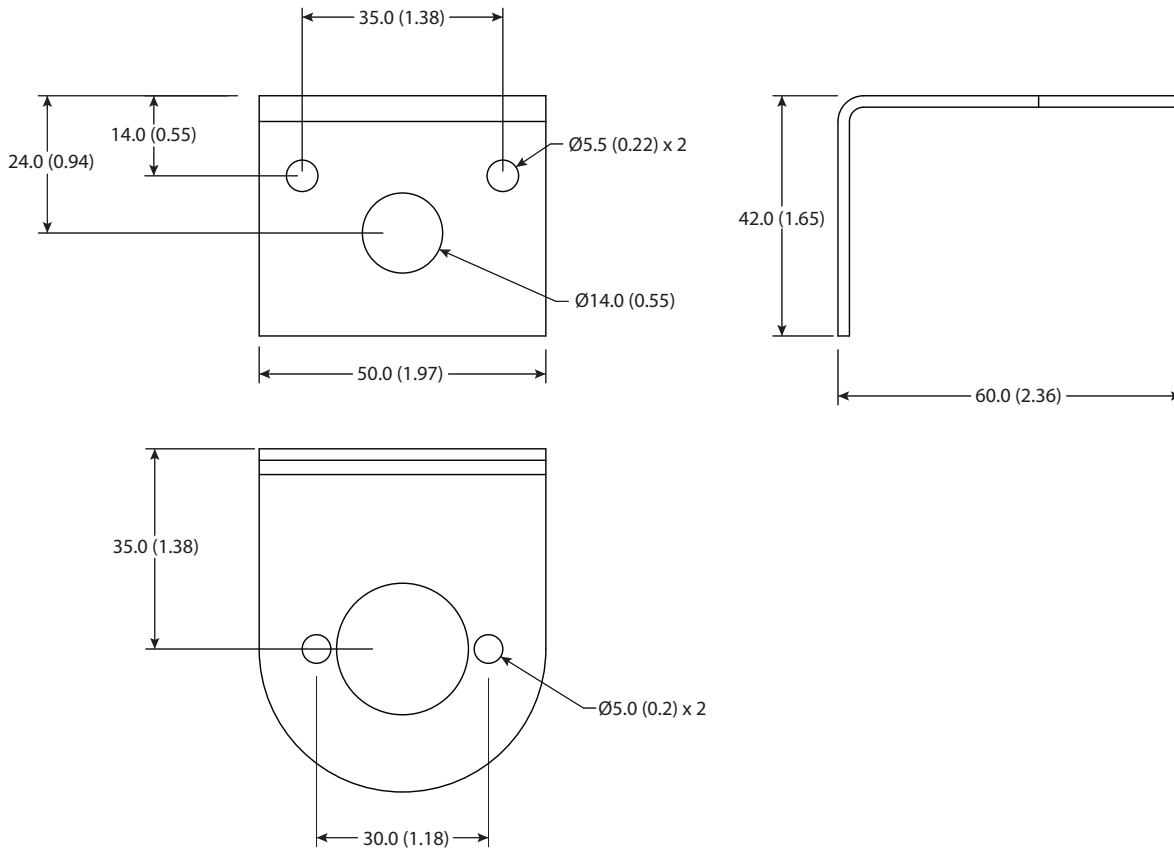
Base Size [cm (in.)]	mm (in.)				
	A	B	C	D	E
10 (3.9)	124.5 (4.9)				
25 (9.8)	274.5 (10.8)				
40 (15.7)	424.5 (16.7)	54.0 (2.1)	54.0 (2.1)	70.0 (2.8)	5.0 (0.2)
60 (23.6)	624.5 (24.6)				
80 (31.5)	824.5 (32.5)				

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

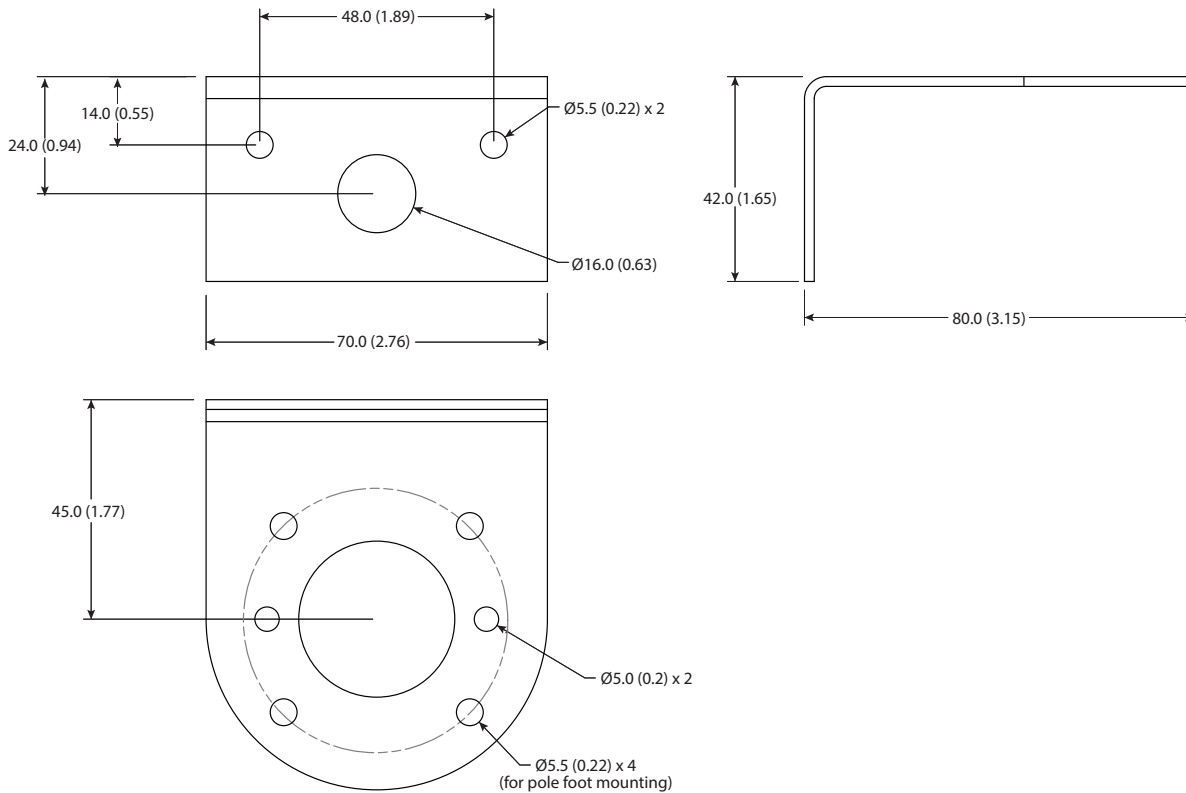


Dimensions in millimeters (inches). Dimensions are not intended to be used for manufacturing purposes.

Catalog Number 855E-AVM Vertical-mount Bracket



Catalog Number 855T-AVM Vertical-mount Bracket



Bulletin 856T — 70 mm Control Tower Stack Lights

Light Modules



Steady LED Module



Multi-function LED Module



Steady/Flashing Beacon Style

856T — $\frac{B}{a}$ $\frac{T}{b}$ $\frac{4}{c}$ $\frac{\quad}{d}$

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) ⁽¹⁾ ⁽²⁾
GB	Steady/flashing, non-stackable beacon style
SB	Strobe 1/strobe 2, non-stackable beacon style ⁽³⁾
RB	Rotating LED, non-stackable beacon style ⁽⁴⁾
MB	7-color LED (RGB), non-stackable beacon style ⁽¹⁾ ⁽²⁾

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

d	
Lens Finish	
Code	Description
Blank	Standard

- (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



In-line Piezo Sounder



Top-mount Piezo Sounder

856T - $\frac{B}{a}$ $\frac{P1}{b}$

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 ⁽¹⁾
PL1	In-line piezo, single circuit, eight tones

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

Power Modules



Power Module 24V AC/DC



Power Module 120/240V AC (3 circuits)



Power Module 120/240V AC (7 circuits)

856T – $\frac{B}{a}$ $\frac{24}{b}$ $\frac{C}{c}$ $\frac{C}{d}$

a	
Housing Color	
Code	Description
B	Black

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

c	
Terminal Block	
Code	Description
Blank	Push-in

d	
Cap Option	
Code	Description
C	Cap included

Base Mounting Adapters



Surface 1/2 in. NPT



Surface with Screws



Vertical Mount



Pole Mount



Threaded Tube Mount

856T – $\frac{BMA}{a}$ $\frac{P10}{b}$ $\frac{C}{c}$

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, preinstalled mounting hardware
P10	10 cm aluminum pole mount
P25	25 cm aluminum pole mount
P40	40 cm aluminum pole mount
P60	60 cm aluminum pole mount
T10	10 cm threaded tube (M20)
T25	25 cm threaded tube (M20)

c	
Cap Option	
Code	Description
Blank	No cap

Preassembled Bases



Surface with M12
Micro connector (5 pin)



Surface with M12 Micro
connector (8 pin)



Catalog Number 856T-B24SNC
Surface Mount for 24V AC/DC (seven levels)



Catalog Number 856T-BA7VMC
Vertical Mount for 120/240V AC (seven levels)



Quick Release
Five levels (prewired)



Catalog Number 856T-BA3P10C
10 cm Pole for 120/240V AC (three levels)

856T –
 a b c d e

a	
Network Option	
Code	Description
Blank	No network option

b	
Housing Color	
Code	Description
B	Black

c	
Voltage Type	
Code	Description
24	24V AC/DC
A3	90...250V AC, 3 circuit
A7	90...250V AC, 7 circuit

d	
Mounting Style	
Code	Description
SN	1/2 in. NPT surface mount
VM	Vertical mount
SH	Surface mount, preinstalled mounting hardware
P10	10 cm aluminum pole mount
P25	25 cm aluminum pole mount
P40	40 cm aluminum pole mount
P60	60 cm aluminum pole mount
T10	10 cm threaded tube (M20)
T25	25 cm threaded tube (M20)
Q10	10 cm quick release ⁽¹⁾
Q25	25 cm quick release ⁽¹⁾
QD5	5-pin M12 connector, M30 mounting thread ⁽¹⁾
QD8	8-pin M12 connector, M30 mounting thread ⁽¹⁾

e	
Cap Option	
Code	Description
C	Cap included

(1) Can only be used with Voltage 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	g	h	g	h	g	h	g	h	g	h	g	h	g	h
						(Level 1, g+h)		(Level 2, g+h)		(Level 3, g+h)		(Level 4, g+h)		(Level 5, g+h)		(Level 6, g+h)		(Level 7, g+h)		

a	
Network Options	
Code	Description
Blank	No network option

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

c	
Terminal Block	
Code	Description
Blank	Push-in

d	
Housing Color	
Code	Description
B	Black

- (1) Must be used with Voltage 24 (Table e)
- (2) Maximum number of levels is five.
- (3) Maximum number of levels is four.
- (4) Voltage (Table e) must be Blank for this option.

e	
Voltage	
Code	Description
24	24V AC/DC
A3	90...250V AC, 3 circuit
A7	90...250V AC, 7 circuit
Blank	For use with Base Type X only







f	
Lens Option	
Code	Description
Blank	Standard

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

h	
Output Color/Sound	
Code	Description
1	Sound module ⁽⁷⁾
3	Green
4	Red
5	Amber
6	Blue
7	White
8	Yellow
9	Magenta ⁽⁸⁾
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) Must be in top position.
- (4) Can use three circuits to play up to seven tones, two circuits to play three tones, or one circuit to play one tone.
- (5) Can only be used with Output Color 4, 5, or 6 (Table h).
- (6) Can only be used with Output Color 4 or 5 (Table h).
- (7) Can only be selected with Module Type P, H, T, and W (Table g).
- (8) Cannot be used with Module Type R, D, K, and Z (Table g).

Accessories — Bulletin 856T

Description		Cat. No.
	O-rings for lenses and bases (Bag of 1)	856T-ARNG
	Flat gasket for SN and SH surface bases (Bag of 1)	856T-ASFG
	Vertical mount gasket (Bag of 1)	856T-AVFG
	Cap (black)	856T-ABCAP
	Transition module	856T-ATM
	Diffuser kit	856T-ADK

Specifications — Bulletin 856T

Table 112 - Mechanical

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.	
		Shock [G]	Vibration [G]
Surface Mount Base	≤1 module stack	TBD	TBD
	≤3 module stack	TBD	TBD
	≤5 module stack	TBD	TBD
Vertical Mount Base	≤1 module stack	TBD	TBD
	≤3 module stack	TBD	TBD
	≤5 module stack	TBD	TBD
10 cm Pole/Tube Base	≤1 module stack	TBD	TBD
	≤3 module stack	TBD	TBD
	≤5 module stack	TBD	TBD
25 cm Pole/Tube Base	≤1 module stack	TBD	TBD
	≤3 module stack	TBD	TBD
	≤5 module stack	TBD	TBD
40 cm Pole Base	≤1 module stack	TBD	TBD
	≤3 module stack	TBD	TBD
	≤5 module stack	TBD	TBD
60 cm Pole Base	≤1 module stack	TBD	TBD
	≤3 module stack	TBD	TBD
	≤5 module stack	TBD	TBD
QR Base	≤1 module stack	TBD	TBD
	≤3 module stack	TBD	TBD
	≤5 module stack	TBD	TBD
QD Base	≤1 module stack	TBD	TBD
	≤3 module stack	TBD	TBD
	≤5 module stack	TBD	TBD
Recommended Wire Sizes		24...14 AWG (UL)/0.2...1.5 mm ² (IEC) (push-in type terminal block)	

Table 113 - Environmental

Attribute		Value
Ingress Ratings		UL Type 4/4X/ 13, IP66/67 ⁽¹⁾ Suitable for indoor and outdoor use
Temperature Ranges	Operating	-30...+70 °C (-22...+158 °F) ⁽²⁾
	Storage	-30...+85 °C (-22...+185 °F)
Relative Humidity		90% noncondensing

(1) QR, QD, 24V, and AC3 bases are IP66.

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

Table 114 - Materials

Part	Material ⁽¹⁾
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

(1) RoHS compliant

Table 115 - Decibel Rating (Sound Modules)

Device	Decibel Rating ⁽¹⁾	Volume Control	No. of Tones
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, 7 stages configured via DIP switch and 3 inputs
856T-BPL1, Piezo, In-line	102 dB(A), max	Adjustable -20 dB	8

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

Table 116 - Light Output

Device	Light Output [mcd]	
Steady		
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	
Multifunction		
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
Rotating		
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]	
Multicolor		
856T-BMC	Seven colors: • Green • Red • Yellow • Blue • White • Magenta • Turquoise (Selectable via three inputs)	4800
Beacon (Steady/Flashing)		
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
Beacon (Strobe)		
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
Beacon (Rotating)		
856T-BRB4 (Red)	Two speeds: • Speed 1 = 90 RPM • Speed 2 = 180 RPM (Selectable via DIP switch)	7500
856T-BRB5 (Amber)		23,200
Beacon (Multicolor)		
856T-BMB	See Multicolor for color options	8100

Table 117 - Operating Voltage ⁽¹⁾

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, 3-Circuit SMPS	120/240V AC	90...250V AC, 50/60Hz
856T-BAC7C, 7-Circuit SMPS	120/240V AC	90...250V AC, 50/60Hz

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

Table 118 - Current Consumption and Life

Device	Nominal Current	Inrush Current	Life
Power Modules			
856T-B24C	—	—	—
856T-BAC3C, 3-circuit SMPS	150 mA, max	6 A, max	30,000 hr
856T-BAC7C, 7-circuit SMPS	340 mA, max	3.5 A, max	30,000 hr
Sound Modules			
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
Steady Light Modules			
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		—	
Multifunction Light Modules			
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			
Rotating Light Modules			
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			
Multicolor Light Modules			
856T-BMC	110 mA	1.30 A DC 1.94 A AC	30,000 hr
Beacon Light Modules (Steady/Flashing)			
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			
Beacon Light Modules (Strobe)			
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			

Table 118 - Current Consumption and Life

Device	Nominal Current	Inrush Current	Life
Beacon Light Modules (Rotating)			
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
Beacon Light Modules (Multicolor)			
856T-BMB	200 mA	1.65 A DC 2.46 A AC	30,000 hr

Standards Compliance

- UL 60947-5-1
- CSA C22.2 No. 14
- CE
 - 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)

Certifications

- c-UL-us Listed (File No. E14840, Guides NKCR, NKCR7)
- CE Marked
- KCC (Registration No. R-REM-RAA-856T)
- China RoHS
- WEEE
- RCM (EN 61000-6-2:2005 and EN 61000-6-3:2007 + A1:2011)

Specifications — Bulletin 855W

Table 119 - 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 120 - Materials

Part	Material
Lenses and Base	Polycarbonate (94V-0)
Cover	ABS
Rubber Seals and Gaskets	NBR 70

Table 121 - 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 122 - 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 123 - Leakage Current Impact

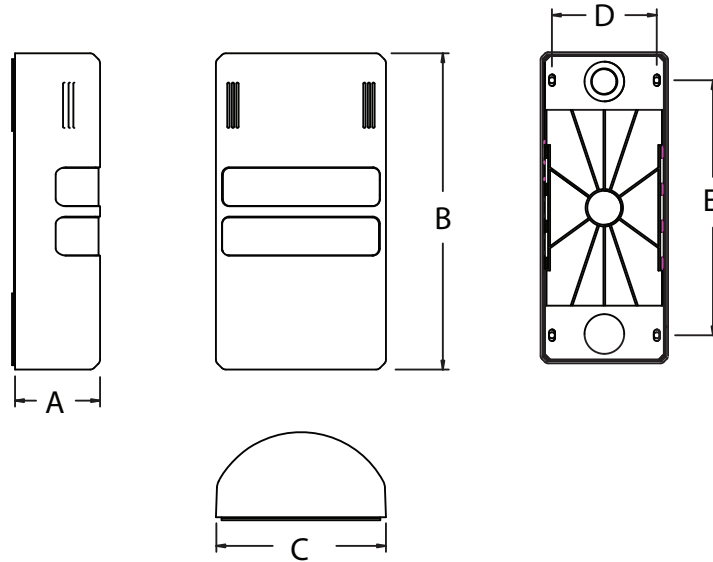
All light and sound modules can absorb up to 3 mA of leakage current from solid-state outputs without module activation.

Table 124 - 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 — Bulletin 855W

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 Loudspeakers

Alarm Horn Sounders



855XH — $\frac{\text{BN}}{\text{a}}$ $\frac{\text{D30}}{\text{b}}$ $\frac{\text{B}}{\text{c}}$

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

b	
Voltage	
Code	Description
D30	10...30V DC
D48	48V 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 — $\frac{\text{BN}}{\text{a}}$ $\frac{\text{A10}}{\text{b}}$ $\frac{\text{B}}{\text{c}}$ $\frac{\text{4}}{\text{d}}$

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

b	
Voltage	
Code	Description
D12	12V DC ⁽¹⁾
D24	24V DC
D48	48V 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

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

(1) The 12V DC voltage is only configurable with the Xenon, 5 J beacon type.

Combined Horn Sounder and Strobe Beacons



855XC – BN A10 A 3
 a b c d

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

b	
Voltage	
Code	Description
D24	24V DC
D48	48V DC
A10	115...120V AC
A20	220...230V AC

c	
Beacon Type	
Code	Description
A	Xenon strobe - 5 J, 110 dB @ 1 m (3.3 ft), 45 tones, 3 stages

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

Public Address Loudspeakers

855XL – BN 70 A
 a b c

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

b	
Voltage	
Code	Description
70	70V line (tappings: 15 W, 7.5 W, 3 W, 1 W)
100	100V line (tappings: 15 W, 7.5 W, 3 W, 1 W)
8R	8 Ω
16R	16 Ω

c	
Beacon Type	
Code	Description
A	15 W RMS

Specifications — Bulletin 855X

Table 125 - Mechanical

Attribute	855XH Horn	855XB Beacon	855XC Horn/Beacon Combination	855XL Public Address Loudspeaker
Shock	30 G Peak			
Vibration	2 G Peak			

Table 126 - Environmental

Attribute	855XH Horn	855XB Beacon	855XC Horn/Beacon Combination	855XL Public Address Loudspeaker
Ingress Ratings	UL Type 4/4X13, IP 66/67			
Temperature Ranges	Operating	-20...+55 °C (-4...+131 °F)		
	Storage	-20...+75 °C (-4...+167 °F)		

Table 127 - Materials

Part	855XH Horn	855XB Beacon	855XC Horn/Beacon Combination	855XL Public Address Loudspeaker
Covers	PPS glass-filled plastic			
Bases	PPS glass-filled plastic			
Mounting Bracket	Stainless Steel 304 (A2)			
Gaskets	Viton®			
Beacon Lens	Glass			
Beacon Housing	PPS glass-filled plastic			

Table 128 - Performance Ratings

Attribute	855XH Horn	855XB Beacon	855XC Horn/Beacon Combination	855XL Public Address Loudspeaker
Sound Output dB @ 1 meter	110 or 117	—	110	—
Xenon Lamp Rating [J]	—	5 or 10	5	—
Flashing Frequency [Hz]	—	1	1	—

Table 129 - Voltage and Current Consumption

Device	Input Voltage	12V AC/DC	24V AC/DC	48V DC (I/P Volts, Max)	10V AC, 50/60 Hz	230V AC, 50/60 Hz
855XH Horn 110 dB @ 1 m (3.3 ft)	DC Units: 10...30V or 48V	—	284 mA (30V)	146 mA (58V)	—	—
	AC Units: 120V or 230V, 50/60 Hz	—	—	—	104 mA (132V)	54 mA (253V)
855XH Horn 117 dB @ 1 m (3.3 ft)	DC Units: 10...30V or 48V	—	280 mA (30V)	215 mA (58V)	—	—
	AC Units: 120V or 230V, 50/60 Hz	—	—	—	142 mA (132V)	76 mA (253V)
855XB Beacon, 5 J	DC Units: 12, 24, or 48V	520 mA (15V)	275 mA (30V)	145 mA (58V)	—	—
	AC Units: 120V or 230V, 50/60 Hz	—	—	—	80 mA (132V)	30 mA (253V)
855XB Beacon, 10 J	DC Units: 24V or 48V	—	560 mA (30V)	260 mA (58V)	—	—
	AC Units: 120V or 230V, 50/60 Hz	—	—	—	185 mA (132V)	107 mA (253V)
855XC Combined Horn (110 dB @ 1 m (3.3 ft)) and Strobe Beacon (5 J)	Horn Section DC Units: 24V or 48V	—	284 mA (30V)	146 mA (58V)	—	—
	Horn Section AC Units: 120V or 230V, 50/60 Hz	—	—	—	104 mA (132V)	54 mA (253V)
	Beacon Section DC Units: 24V or 48V	—	275 mA (30V)	145 mA (58V)	—	—
	Beacon Section AC Units: 120V or 230V, 50/60 Hz	—	—	—	80 mA (132V)	30 mA (253V)

Table 130 - Operating Ratings

Device	Impedance	Input	Wattage	I/P Volts, Max
855XL PA Loudspeaker ⁽¹⁾	8 Ω	8 Ω	15 W	10.095V
	16 Ω	16 Ω	15 W	15.49V
	100V Line	100V Line	15 W	100V
	70V Line	70V Line	15 W	70V

(1) Power Amplifier Selection: It is important that loudspeakers are connected to power amplifiers that have outputs compatible to the type of loudspeaker being used. Loudspeakers with a 70V or 100V line-matching transformer that is fitted must be connected to a power amplifier with a 70V or 100V line output. Low impedance 8 Ω or 16 Ω loudspeakers must be connected to amplifiers with a suitable low-impedance output.

Table 131 - Temperature Ratings

Device	Hazardous Location	Code (Operating Temperature, Max) @ 55 °C (131 °F) Ambient	Code (Operating Temperature, Max) @ 40 °C (104 °F) Ambient
855XB- 5 J Beacon	Class I, Division 2, Groups A, B, C, D	T2D (215 °C [419 °F])	T3 (200 °C [392 °F])
	Class II, Division 2, Groups F and G	T5 (100 °C [212 °F])	T6 (85 °C [185 °F])
	Class III, Divisions 1 and 2	T5 (100 °C [212 °F])	T6 (85 °C [185 °F])
855XB- 10 J Beacon	Class I, Division 2, Groups A, B, C, D	T2A (280 °C [536 °F])	—
	Class II, Division 2, Groups F and G	T4A (120 °C [248 °F])	T5 (100 °C [212 °F])
	Class III, Divisions 1 and 2	T4A (120 °C [248 °F])	T5 (100 °C [212 °F])
855XH- 110 dB Souder	Class I, Division 2, Groups A, B, C, D	T3C (160 °C [320 °F])	T4 (135 °C [275 °F])
	Class II, Division 2, Groups F and G	T6 (85 °C [185 °F])	—
	Class III, Divisions 1 and 2	T6 (85 °C [185 °F])	—
855XH- 117 dB Souder	Class I, Division 2, Groups A, B, C, D	T3C (160 °C [320 °F])	T4 (135 °C [275 °F])
	Class II, Division 2, Groups F and G	T6 (85 °C [185 °F])	—
	Class III, Divisions 1 and 2	T6 (85 °C [185 °F])	—
855XC- Sound/Strobe Combination	Class I, Division 2, Groups A, B, C, D	T2D (215 °C [419 °F])	T3 (200 °C [392 °F])
	Class II, Division 2, Groups F and G	T5 (100 °C [212 °F])	T6 (85 °C [185 °F])
	Class III, Divisions 1 and 2	T5 (100 °C [212 °F])	T6 (85 °C [185 °F])
855XL- Loudspeaker	Class I, Division 2, Groups A, B, C, D	T4 (135 °C [275 °F])	T4A (120 °C [248 °F])
	Class II, Division 2, Groups F and G	T6 (85 °C [185 °F])	—
	Class III, Divisions 1 and 2	T6 (85 °C [185 °F])	—

Standards Compliance

- UL 508
- UL 1604
- CSA C22.2 No. 14
- CSA C22.2 No. 213
- EN/IEC 60947-1
- EN/IEC 60947-5-1

Certifications

- CE Marked
- c-UL-us 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 & G, and Class III, Division 1 & 2

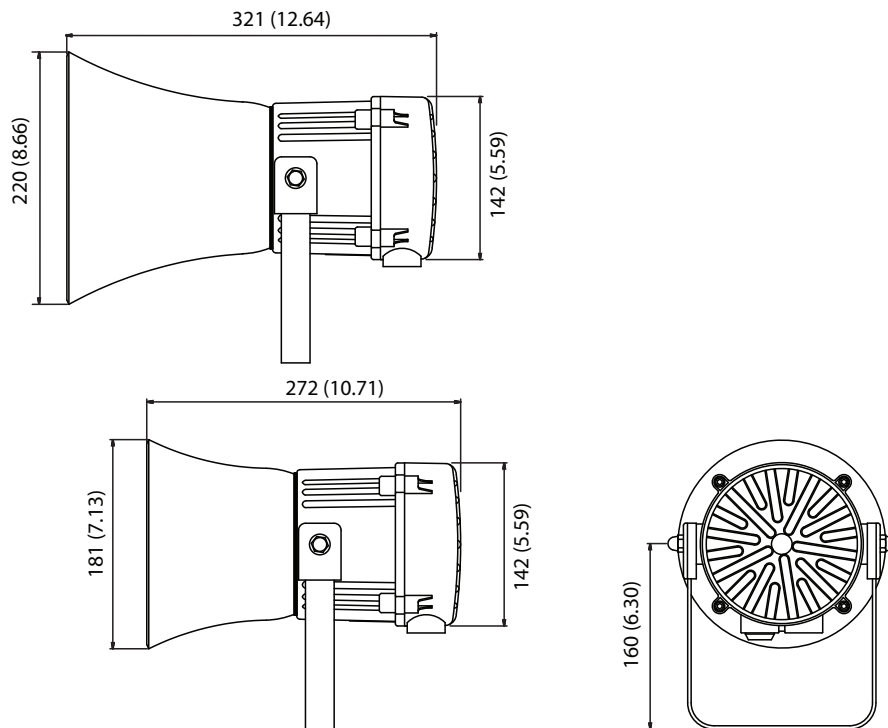
Tone Selection Table for 855XH and 855XC Units

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 PT.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

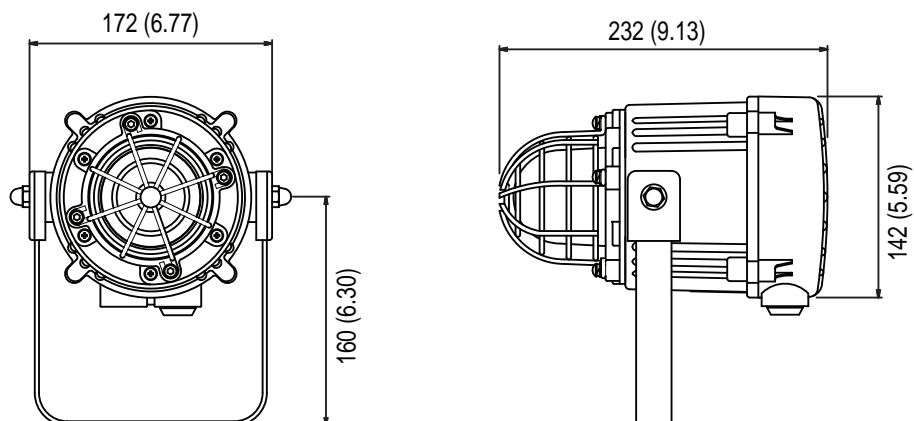
Approximate Dimensions — Bulletin 855X

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

Horns

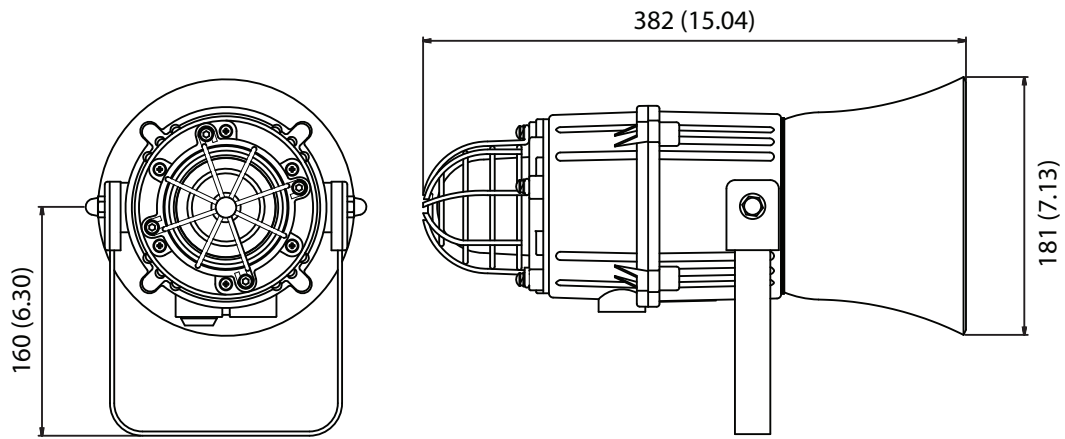


Beacons

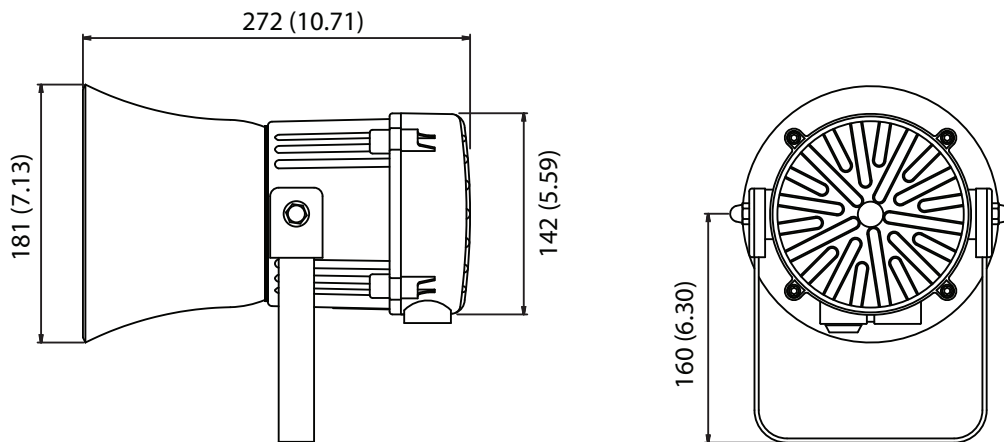


Dimensions in millimeters (inches). Dimensions are not intended to be used for manufacturing purposes.

Horn and Beacon Combinations



Public Address Loudspeakers



Bulletin 855XM — Hazardous Location Metal Horns

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 ⁽³⁾
D30	10...30V DC ⁽⁴⁾
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 ⁽¹⁾⁽²⁾	
Code	Description
Blank	No light
A	5 J, strobe
B	10 J, strobe

g	
Lens Color ⁽¹⁾⁽²⁾	
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).

Specifications — Bulletin 855XM

Table 132 - Mechanical

Device	The following are reference guidelines for maximum shock and vibration standards for the 855XM horn.	
	Shock [G]	Vibration [G]
Metal horn	40	3
Metal horn with attached beacon	30	3

Table 133 - Environmental

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

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

Table 134 - 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 135 - Performance Ratings

Device	Sound Output @ 1 m (3.3 ft) ⁽¹⁾	Volume Control	No. of Tones	Stages
Metal Horn	116 dB(A), max	Adjustable -12 dB(A)	64	4
	Light Output (Xenon Strobe Beacon- 5 J)		Light Output (Xenon Strobe Beacon- 10 J)	
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 136 - Operating Voltage and Current Consumption

Device	Operating Voltage	Nominal Maximum	Inrush	Leakage Immunity
Horns				
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	>3 mA
855XM-HGMA20D	230V AC 50 Hz ±10%	52 mA @ 230V AC 60 Hz	350 mA, 7 ms	
Horns with Beacon				
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 137 - Flashing Frequency

Device	Frequency
Horns with strobe	1 Hz

Table 138 - Miscellaneous

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

Table 139 - ATEX/IECEx Certification

Zone	Group	Temperature Code
855XM Hazardous Location Metal Horn		
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 ⁽¹⁾	Group IIIA (combustible flyings) Group IIIB (non-conductive dust) Group IIIC (conductive dust)	—
855XM-C Hazardous Location Metal Horn with Strobe		
Zone 2	Group IIA (propane) Group IIB (ethylene) Group IIC (hydrogen/acetylene)	T1 (450 °C [842 °F]) T2 (300 °C [572 °F])
Zone 22 ⁽²⁾	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-CGMxxxDA* and 230 °F (110 °C) for Cat. No. 855XM-CGMxxxDB*.

Table 140 - Class/Zone Ratings — US

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

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

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

Table 141 - Class/Zone Ratings — Canada

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

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 142 - Class/Division Ratings — US and Canada

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

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

Standards Compliance

- c-UL-us Listed UL464/UL 1608 File No. E305533
- CSA C22.2 No. 213-M1987
- CSA C22.2 No. 157-92: 2006
- CE — European Explosive Atmosphere Directive 94/9/EC and European EMC Directive 2004/108/EC
- EN60079-0:2012/IEC60079-0: ed. 6.0 (2011-06)
- EN60079-15:2010/IEC60079-15: ed. 4.0 (2010-01)
- EN60079-31:2009/IEC60079-31:2009 ed. 1.0 (corr. 1 2009)

Certifications

- CE Marked
- UL Listed for:
 - Class I, Division 2, Groups A, B, C, and D
 - Class II, Division 2, Groups F and G
 - Class III, Division 1 and 2 (see Temperature Codes in [Table 139 on page 109](#))
- ATEX/IECEx: Zone 2 Groups IIA, B, C and Zone 22 Groups IIIA, B, and C
- 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])
- 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])
- 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)]

Tone Selection Table for 855XM

Tone Selection – To select the required first stage tone, set the tone switches 1...6 to the tone setting shown in the following table. The table also shows which 2nd, 3rd, and 4th stage tones are available for use with the selected first stage tone if more than one tone output is required.

Stage 1 Tone No.	Tone Description	Tone Visual	Switch						Stage 2 Alarm (S2)	Stage 3 Alarm (S3)	Stage 4 Alarm (S2+S3)
			1	2	3	4	5	6			
1	1000 Hz PFEER toxic gas	1000 Hz	0	0	0	0	0	0	3	2	44
2	1200/500 @ 1 Hz DIN / PFEER P.T.A.P.	1200 Hz 1 s 500 Hz 1 s	1	0	0	0	0	0	1	3	44
3	1000 @ 0.5 Hz(1 s on/1 s off) PFEER gen. alarm	1000 Hz 1 s 1 s	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 N F C 48-265	1600 Hz 1 s 1400 Hz 1 s	1	1	0	0	0	0	44	24	1
5	544 (100 ms)/440 (400 ms) N F S 32-001	554 Hz 0.1 s 440 Hz 0.4 s	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	1500 Hz 0.5 s 500 Hz 0.5 s 0.5 s 0.5 s 0.5 s 1.5 s	1	0	1	0	0	0	7	44	1
7	500...1500 Hz sweeping 2 s on/1 s off AS4428	1500 Hz 500 Hz 2 s 1 s	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	1200 Hz 500 Hz 3.3 s 0.5 s	1	1	1	0	0	0	44	24	35
9	1000 (1 s on/1 s off) x7 + (7 s on/1 s off)	1000 Hz 1 s 1 s 1 s 1 s 1 s 1 s 1 s 7 s 7 s	0	0	0	1	0	0	18	34	1
10	IMO Code 1a	1000 Hz 1 s 1 s 1 s 1 s 1 s 1 s 1 s 1 s 1 s 1 s 7 s 7 s	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	420 Hz 0.5 s 0.5 s 0.5 s 1.5 s	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	1000 Hz 0.5 s 0.5 s 0.5 s 1.5 s	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	775 Hz 422 Hz 0.85 s 0.5 s 0.85 s 0.5 s 0.85 s 1.5 s	0	0	1	1	0	0	44	1	8
14	1000/2000 @ 1 Hz Singapore	2000 Hz 1000 Hz 1 s	1	0	1	1	0	0	23	3	35
15	300 continuous	300 Hz	0	1	1	1	0	0	44	24	35
16	440 continuous	440 Hz	1	1	1	1	0	0	44	24	35
17	470 continuous	470 Hz	0	0	0	0	1	0	44	24	35
18	500 continuous IMO Code 2 (low)	500 Hz	1	0	0	0	1	0	44	24	35
19	554 continuous	554 Hz	0	1	0	0	1	0	64	24	35
20	660 continuous	660 Hz	1	1	0	0	1	0	44	24	35
21	800 IMO Code 2 (high)	800 Hz	0	0	1	0	1	0	44	24	35
22	1200 continuous	1200 Hz	1	0	1	0	1	0	44	24	35
23	2000 continuous	2000 Hz	0	1	1	0	1	0	15	3	35
24	2400 continuous	2400 Hz	1	1	1	0	1	0	48	20	35
25	440 @ 0.83 Hz (50 cycles/min) intermittent	440 Hz 0.6 s 0.6 s	0	0	0	1	1	0	1	44	8
26	470 @ 0.9 Hz - 1.1 s intermittent	470 Hz 0.55 s 0.55 s	1	0	0	1	1	0	1	44	8
27	470 @ 5 Hz - (5 cycles/s) intermittent	470 Hz 0.1 s 0.1 s	0	1	0	1	1	0	1	44	8
28	544 @ 1.14 Hz - 0.875 s intermittent	470 Hz 0.43 s 0.44 s	1	1	0	1	1	0	44	24	8
29	655 @ 0.875 Hz intermittent	655 Hz 0.57 s 0.57 s	0	0	1	1	1	0	1	44	8
30	660 @ 0.28 Hz - 1.8 s on/1.8 s off intermittent	660 Hz 1.8 s 1.8 s	1	0	1	1	1	0	44	24	8
31	660 @ 3.34 Hz - 150 ms on/150 ms off intermittent	660 Hz 0.15 s 0.15 s	0	1	1	1	1	0	30	24	8
32	745 @ 1 Hz intermittent	745 Hz 0.5 s 0.5 s	1	1	1	1	1	0	44	24	8
33	800 - 0.25 s on/1 s off intermittent	800 Hz 0.25 s 1 s	0	0	0	0	0	1	53	24	8

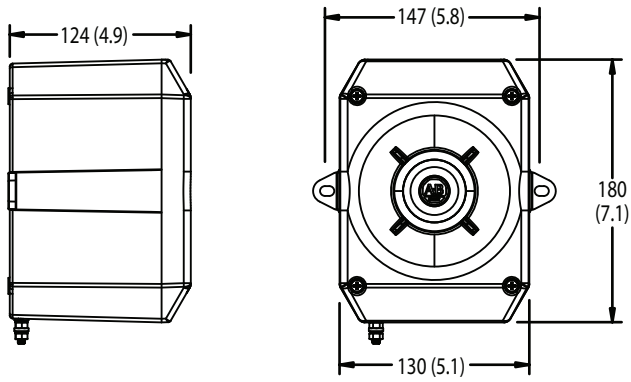
Tone Selection – To select the required first stage tone, set the tone switches 1...6 to the tone setting shown in the following table. The table also shows which 2nd, 3rd, and 4th stage tones are available for use with the selected first stage tone if more than one tone output is required.

Stage 1 Tone No.	Tone Description	Tone Visual	Switch						Stage 2	Stage 3	Stage 3
			1	2	3	4	5	6			
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
56	2400/2900 @ 7 Hz sweeping		1	1	1	0	1	1	57	24	12
57	2400/2900 @ 1 Hz sweeping		0	0	0	1	1	1	47	24	12
58	2400/2900 @ 50 Hz sweeping		1	0	0	1	1	1	54	24	12
59	2500/3000 @ 2 Hz sweeping		0	1	0	1	1	1	44	24	12
60	2500/3000 @ 7.7 Hz sweeping		1	1	0	1	1	1	44	24	12
61	800 motor siren		0	0	1	1	1	1	44	24	12
62	1200 motor siren		1	0	1	1	1	1	44	24	12
63	2400 motor siren		0	1	1	1	1	1	44	24	12
64	Simulated bell		1	1	1	1	1	1	44	21	12

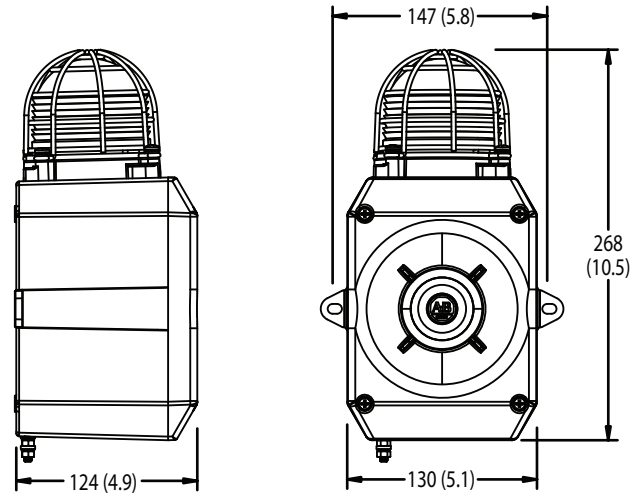
Approximate Dimensions — Bulletin 855X

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



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