



Bulletin 855T — 70mm Control Tower™ Stack Lights

- Light and Sound Signaling Products
- Surface, Vertical, or Pole Mounting
- Light Modules - UL Type 4/4X/13, IP65
- Sound Modules - Piezo and Transducer options
- DeviceNet bases available

Standards Compliance and Certifications

EN/IEC 60947-5-1
 CSA C22.2 No. 14
 UL 508
 cULus Listed (File No. E14840, Guide No. NKCR)
 CE Marked

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Light Modules

855T – **B** **10** **FN** **4**
 a *b* *c* *d*



Red Flashing Incandescent (Black Housing)

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 Full Voltage
24	24V AC/DC Full Voltage
10	120V AC Full Voltage
20	240V AC Full Voltage

c

Module Type	
Code	Description
XN	Steady No-Lamp*
DN	Steady Incandescent
FN	Flashing Incandescent
TL	Steady LED
GL	Flashing LED
BR	Strobe

d

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

* Use only with Voltage Code **00**. Accepts LED module or incandescent lamp.

Voltage	Color	Illumination Type	Black Housing Color	Gray Housing Color
			Cat. No.*	Cat. No.*
0...250V No-Lamp Module	Green	Steady Incandescent / LED	855T-B00XN3	855T-G00XN3
	Red		855T-B00XN4	855T-G00XN4
24V AC/DC Full Voltage	Green	Steady Incandescent	855T-B24DN3	855T-G24DN3
		Flashing Incandescent	855T-B24FN3	855T-G24FN3
		Steady LED	855T-B24TL3	855T-G24TL3
	Red	Steady Incandescent	855T-B24DN4	855T-G24DN4
		Flashing Incandescent	855T-B24FN4	855T-G24FN4
		Strobe	855T-B24BR4	855T-G24BR4
	Amber	Steady Incandescent	855T-B24DN5	855T-G24DN5
		Flashing Incandescent	855T-B24FN5	855T-G24FN5
		Steady LED	855T-B24TL5	855T-G24TL5
120V AC Full Voltage	Green	Steady Incandescent	855T-B10DN3	855T-G10DN3
		Flashing Incandescent	855T-B10FN3	855T-G10FN3
		Steady LED	855T-B10TL3	855T-G10TL3
	Red	Steady Incandescent	855T-B10DN4	855T-G10DN4
		Flashing Incandescent	855T-B10FN4	855T-G10FN4
		Strobe	855T-B10BR4	855T-G10BR4
	Amber	Steady Incandescent	855T-B10DN5	855T-G10DN5
		Flashing Incandescent	855T-B10FN5	855T-G10FN5
		Steady LED	855T-B10TL5	855T-G10TL5

* Refer to configurator options for additional selections.

70mm Control Tower™ Stack Lights

Product Selection, Continued

Single-Circuit Light Modules with Piezo Sounder*

All modules contain a selected light option with a sound device that operates simultaneously. The Piezo style sound module 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.

855T – **B** **10** **DC** **3**
 a *b* *c* *d*



Red Strobe/Sound Combination Module (Black Housing)

a

Housing Color	
Code	Description
B	Black
G	Gray

b

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

c

Module Type	
Code	Description
DC	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

Voltage	Illumination Type	Lamp Color	Black Housing Color	Gray Housing Color
			Cat. No.*	Cat. No.*
24V AC/DC Full Voltage	Steady Incandescent	Green	855T-B24DC3	855T-G24DC3
	Flashing Incandescent		855T-B24FC3	855T-G24FC3
	Steady LED		855T-B24TC3	855T-G24TC3
	Steady Incandescent	Red	855T-B24DC4	855T-G24DC4
	Flashing Incandescent		855T-B24FC4	855T-G24FC4
	Strobe		855T-B24BC4	855T-G24BC4
	Steady Incandescent	Amber	855T-B24DC5	855T-G24DC5
	Flashing Incandescent		855T-B24FC5	855T-G24FC5
	Steady LED		855T-B24TC5	855T-G24TC5
120V AC Full Voltage	Steady Incandescent	Green	855T-B10DC3	855T-G10DC3
	Flashing Incandescent		855T-B10FC3	855T-G10FC3
	Steady LED		855T-B10TC3	855T-G10TC3
	Steady Incandescent	Red	855T-B10DC4	855T-G10DC4
	Flashing Incandescent		855T-B10FC4	855T-G10FC4
	Strobe		855T-B10BC4	855T-G10BC4
	Steady Incandescent	Amber	855T-B10DC5	855T-G10DC5
	Flashing Incandescent		855T-B10FC5	855T-G10FC5
	Steady LED		855T-B10TC5	855T-G10TC5

* The 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.

* Refer to configurator options for additional selections.

2-Circuit Light Modules with Piezo Sounder*

Modules contain two circuits enabling separate operation of light or sound in the same module. The Piezo style sound device 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.

855T – **B** **10** **DD** **4**
a b c d



2-Circuit Steady Incandescent/
Sound Combination Module (Black Housing)

a

Housing Color	
Code	Description
B	Black
G	Gray

b

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

c

Module Type	
Code	Description
DD	2-Circuit Steady Incandescent/with Sound

d

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

Voltage	Illumination Type	Lamp Color	Black Housing Color	Gray Housing Color
			Cat. No.*	Cat. No.*
12V AC/DC Full Voltage	Steady Incandescent	Green	855T-B12DD3	855T-G12DD3
		Red	855T-B12DD4	855T-G12DD4
		Amber	855T-B12DD5	855T-G12DD5
		Blue	855T-B12DD6	855T-G12DD6
		Clear	855T-B12DD7	855T-G12DD7
		Yellow	855T-B12DD8	855T-G12DD8
24V AC/DC Full Voltage		Green	855T-B24DD3	855T-G24DD3
		Red	855T-B24DD4	855T-G24DD4
		Amber	855T-B24DD5	855T-G24DD5
		Blue	855T-B24DD6	855T-G24DD6
		Clear	855T-B24DD7	855T-G24DD7
		Yellow	855T-B24DD8	855T-G24DD8
120V AC Full Voltage		Green	855T-B10DD3	855T-G10DD3
		Red	855T-B10DD4	855T-G10DD4
		Amber	855T-B10DD5	855T-G10DD5
		Blue	855T-B10DD6	855T-G10DD6
		Clear	855T-B10DD7	855T-G10DD7
		Yellow	855T-B10DD8	855T-G10DD8

* The 2-circuit 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.

* Refer to configurator options for additional selections.

Bulletin 855T

70mm Control Tower™ Stack Lights

Product Selection, Continued

Transducer Style Sound Modules

- UL Type 12, IP54
- Up to 15 tones
- Adjustable volume @ 1 meter from 64...103 dB(A)
- Adjustable frequency and speed tone

855T – **B** **10** **SA1**

a *b* *c*



Transducer Style Single Tone/Single Circuit
Sound Module (Black Housing)

a

Housing Color	
Code	Description
B	Black
G	Gray

b

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

c

Module Type	
Code	Description
SA1	Single Tone Sound Module with 13 different tones*
TA1	Dual Tone sound Module with 15 sets of dual tone combinations*

Voltage	Module Type	Tone	Black Housing Color	Gray Housing Color
			Cat. No.‡	Cat. No.‡
24V AC/DC Full Voltage	Single Tone Transducer Style	Preset as Triangle Tone	855T-B24SA1	855T-G24SA1
	Dual Tone Transducer Style	Preset as Triangle Tone/Continuous Tone	855T-B24TA1	855T-G24TA1
120V AC Full Voltage	Single Tone Transducer Style	Preset as Triangle Tone	855T-B10SA1	855T-G10SA1
	Dual Tone Transducer Style	Preset as Triangle Tone/Continuous Tone	855T-B10TA1	855T-G10TA1

* 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.

⌘ 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.

‡ Refer to configurator options for additional selections.

Piezo Style Sound Modules

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

855T – G 24 TA2
 a *b* *c*



*Piezo Style Dual Tone/Dual Circuit
Sound Module (Black Housing)*

a

Housing Color	
Code	Description
B	Black
G	Gray

b

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

c

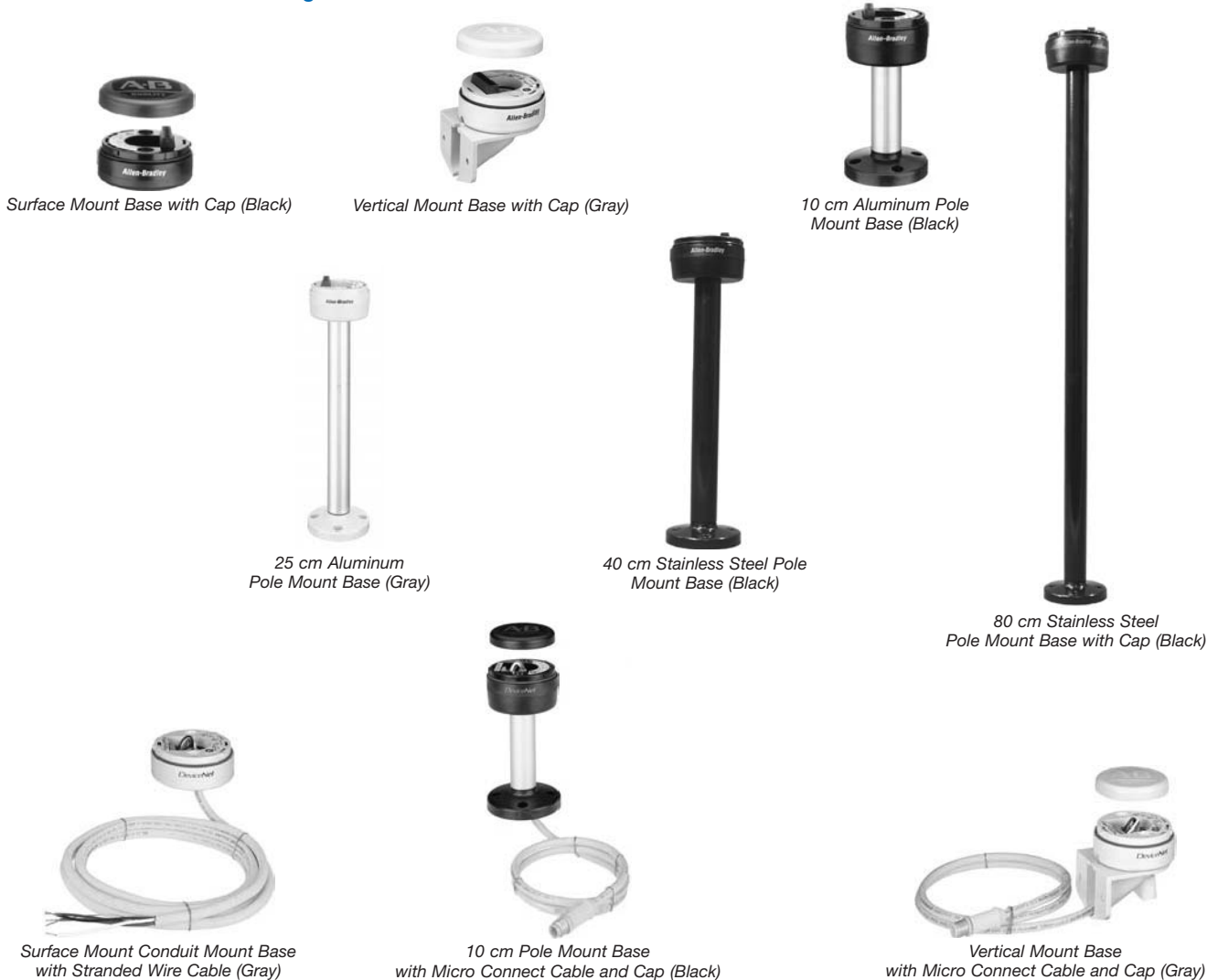
Module Type	
Code	Description
SA2	• Single Tone/Single Circuit Piezo style Module with continuous or pulsing tones modified by a DIP switch • Type 12 • Volume 97/85 dB @ 1 m
TA2	• Dual Tone/Dual Circuit Piezo style Module with continuous or pulsing tone modified by energizing 1 or 2 circuit of sound modules • Type 12 • Volume 97/85 dB @ 1 m
SA3	• Single Tone/Single Circuit Piezo style Module with continuous or pulsing tones modified by a DIP switch • Type 4/4X/13 • Volume 107/92 dB @ 1 m
TA3	• Dual Tone/Dual Circuit Piezo style Module with continuous or pulsing tone modified by energizing 1 or 2 circuit of sound modules • Type 4/4X/13 • Volume 107/92 dB @ 1 m

Voltage	Module Type	Tone Type	Black Housing Color	Gray Housing Color
			Cat. No.*	Cat. No.*
24V AC/DC Full Voltage	Dual Tone Piezo Style (UL Type 12, IP54)	Pulsing Tone/Continuous Tone	855T-B24TA2	855T-G24TA2
	Dual Tone Piezo Style (UL Type 4/4X/13, IP65)		855T-B24TA3	855T-G24SA3
	Single Tone Piezo Style (Type 12, IP54)		855T-B24SA2	855T-B24SA2
	Single Tone Piezo Style (Type 4/4X/13, IP65)		855T-B24SA3	855T-G24SA3
120V AC Full Voltage	Dual Tone Piezo Style (Type 12, IP54)	Pulsing Tone/Continuous Tone	855T-B10TA2	855T-G10TA2
	Dual Tone Piezo Style (Type 4/4X/13, IP65)		855T-B10TA3	855T-G10TA3
	Single Tone Piezo Style (UL Type 12, IP54)		855T-B10SA2	855T-G10TA2
	Single Tone Piezo Style (UL Type 4/4X/13, IP65)		855T-B10SA3	855T-G10SA3

* Refer to configurator options for additional selections.

Bulletin 855T
70mm Control Tower™ Stack Lights
Product Selection, Continued

Standard and DeviceNet Stack Light Bases



855T – **DL1** **B** **PM10** **C**
a b c d

a

Network Connection Type	
Code	Description
Blank	No Network Connection
DM1	DeviceNet Micro-connect with 1 m Cable*
DS2	DeviceNet Stranded Wire Connect with 2 m Cable*
DL1	DeviceNet Mini-connect with 1 m Cable*

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
PM25	25 cm Aluminum Pole Mount
PM40	40 cm Aluminum Pole Mount
SPM10	10 cm Stainless Steel Pole Mount*
SPM25	25 cm Stainless Steel Pole Mount*
SPM40	40 cm Stainless Steel Pole Mount*
SPM60	60 cm Stainless Steel Pole Mount*
SPM80	80 cm Stainless Steel Pole Mount*

d

Cap Option	
Code	Description
Blank	No Cap
C	Cap Included

* 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.
* Stainless Steel tube is powder-coated in black.

Standard Stack Light Bases

Housing Color	Base Type	With Cap Option	Without Cap Option
		Cat. No.*	Cat. No.*
Black	Surface Mount — 1/2 in NPT Conduit Mount	855T-BCBC	855T-BCB
	Surface Mount — PG16 Conduit Mount	855T-BSBC	855T-BSB
	Surface Mount — M20 x 1.5 Conduit Mount	855T-BRBC	855T-BRBC
	Vertical Mount	855T-BVMC	855T-BVM
	10 cm Aluminum Pole Mount	855T-BPM10C	855T-BPM10
	25 cm Aluminum Pole Mount	855T-BPM25C	855T-BPM25
	40 cm Aluminum Pole Mount	855T-BPM40C	855T-BPM40
	25 mm Diameter Tube Mount	855T-BTMC	855T-BTM
	10 cm Stainless Steel Pole Mount	855T-BSPM10C	855T-BSPM10
	25 cm Stainless Steel Pole Mount	855T-BSPM25C	855T-BSPM25
	40 cm Stainless Steel Pole Mount	855T-BSPM40C	855T-BSPM40
	60 cm Stainless Steel Pole Mount	855T-BSPM60C	855T-BSPM60
	80 cm Stainless Steel Pole Mount	855T-BSPM80C	855T-BSPM80

DeviceNet Stack Light Bases

Cable Type	Base Type	Cap Option*	Black Housing Color	Gray Housing Color
			Cat. No.*	Cat. No.*
Micro Connect (approximately 1 meter cable length)	Surface Mount — 1/2 in NPT Conduit Mount	With Cap	855T-DM1BCBC	855T-DM1GCBC
	Surface Mount — PG16 Conduit Mount		855T-DM1BSBC	855T-DM1GSBC
	Surface Mount — M20 x 1.5 Conduit Mount		855T-DM1BRBC	855T-DM1BRBC
	Vertical Mount		855T-DM1BVMC	855T-DM1GVMC
	10 cm Pole Mount		855T-DM1BPM10C	855T-DM1GPM10C
	25 cm Pole Mount		855T-DM1BPM25C	855T-DM1GPM25C
	25 mm Diameter Tube Mount		855T-DM1BTMC	855T-DM1GTMC
Stranded Wire Connect (approximately 2 meter cable length)	Surface Mount — 1/2 in NPT Conduit Mount		855T-DS2BCBC	855T-DS2GCBC
	Surface Mount — PG16 Conduit Mount		855T-DS2BSBC	855T-DS2GSBC
	Surface Mount — M20 x 1.5 Conduit Mount		855T-DS2BRBC	855T-DS2BRBC
	Vertical Mount		855T-DS2BVMC	855T-DS2GVMC
	10 cm Pole Mount		855T-DS2BPM10C	855T-DS2GPM10C
	25 cm Pole Mount		855T-DS2BPM25C	855T-DS2GPM25C
	25 mm Diameter Tube Mount		855T-DS2BTMC	855T-DS2GTMC
Mini Connect (approximately 1 meter cable length)	Surface Mount — 1/2 in NPT Conduit Mount		855T-DL1BCBC	855T-DL1GCBC
	Surface Mount — PG16 Conduit Mount		855T-DL1BSBC	855T-DL1GSBC
	Surface Mount — M20 x 1.5 Conduit Mount		855T-DL1BRBC	855T-DL1BRBC
	Vertical Mount		855T-DL1BVMC	855T-DL1GVMC
	10 cm Pole Mount		855T-DL1BPM10C	855T-DL1GPM10C
	25 cm Pole Mount		855T-DL1BPM25C	855T-DL1GPM25C
	25 mm Diameter Tube Mount		855T-DL1BTMC	855T-DL1GTMC

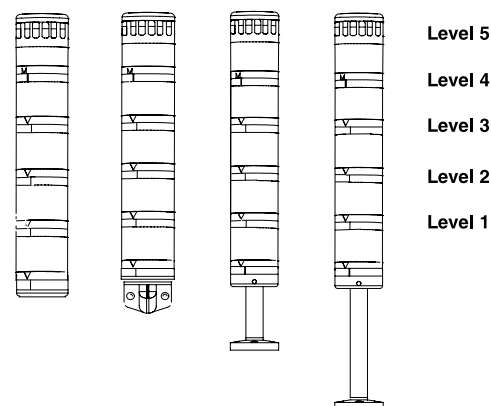
* See previous page for all configurator options.

* All Bases can be purchased without Cap. Remove the "C" from the end of the cat. no.

70mm Control Tower™ Stack Lights

Product Selection, Continued

Pre-Assembled Stacks, One to Five Modules



855 **TS** – **DL1** **B** **10** **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)
(Level 2)
(Level 3)
(Level 4)
(Level 5)

e+f
e+f
e+f
e+f
e+f

a

Base Type	
Code	Description
TX	Module Only Stack (No Base)
TC	Surface Mount 1/2 in NPT Conduit
TS	Surface Mount PG16 Conduit
TR	Surface Mount M20 x 1.5 Conduit§
TV	Vertical Mount
TP	10 cm Pole Mount
TE	25 cm Pole Mount
TM	25 mm Diameter Tube Mount

b

Network Options	
Code	Description
Blank	Standard
DL1	DeviceNet Mini-Connect with 1 m Cable*
DM1	DeviceNet Micro-connect with 1 m Cable*
DS2	DeviceNet Stranded Wire Connect with 2 m Cable*

c

Housing Color	
Code	Description
B	Black
G	Gray

d

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

e

Module Type	
Code	Description
D	Steady Incandescent
F	Flashing Incandescent
Y	Steady LED
L	Flashing LED
B	Strobe
T	Steady Incandescent/with Sound*
H	Flashing Incandescent/with Sound*
J	2-Circuit Steady Incandescent with Sound
E	Steady LED/with Sound*
G	Flashing LED/with Sound*
Z	Strobe/with Sound*
A	Transducer Style Single Tone Sound Module*
W	Transducer Style Dual Tone Sound Module*
K	Single Circuit Piezo Alarm UL Type 12, IP54
M	Dual Circuit Piezo Alarm UL Type 12, IP54
P	Single Circuit Piezo Alarm UL Type 4/4X/13, IP65
Q	Dual Circuit Piezo Alarm UL Type 4/4X/13, IP65

f

Lens Color	
Code	Description
1	Sound Module‡
3	Green
4	Red
5	Amber
6	Blue
7	Clear
8	Yellow

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

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

‡ Sound module from Table f can only be selected with single tone or dual tone module types from Table e.

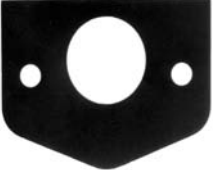
§ Base type TR is not available with DeviceNet network option.

	Description	Cat. No.	
 (BA15d Bayonet) 19mm Socket Height	Incandescent Lamps	855T-L12	
	12V AC/DC		
	24V AC/DC	855T-L24	
	120V AC		
	240V AC	855T-L20	
	Description	Color	Cat. No.
	LED Lamps for Socket-Mounted Modules	Red	855E-LL12R
		Green	855E-LL12G
		Amber	855E-LL12A
		Blue	855E-LL12B
		White*	855E-LL12W
	12V AC/DC	Red	855E-LL24R
		Green	855E-LL24G
		Amber	855E-LL24A
		Blue	855E-LL24B
		White*	855E-LL24W
	24V AC/DC	Red	855E-LL10R
		Green	855E-LL10G
		Amber	855E-LL10A
		Blue	855E-LL10B
		White*	855E-LL10W
	120V AC	Red	855E-LL20R
		Green	855E-LL20G
		Amber	855E-LL20A
		Blue	855E-LL20B
		White*	855E-LL20W
	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	855T-ABCAP
	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.	Gray	855T-AGCAP
	Gaskets Lens O-Ring Seal Replacement rubber O-rings are to be installed between all bases, light, sound, and light/with sound modules. (Must order multiples of 5.)	855T-ALSG	
	Surface Mount Gasket Replacement flat gasket is to be placed between the mounting surface and the surface mount base. (Must order multiples of 5.) To be used with Cat. No. 855T-BSB and 855T-BCB bases.	855T-ASFG	
	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.) To be used with Cat. No. 855T-BPM10, 855T-BPM25, and 855T-BPM40 pole bases.	855T-APFG	

* White LED lamps are to be used with a lens option of Clear.

70mm Control Tower™ Stack Lights

Accessories, Continued

	Description	Cat. No.
	Gaskets Vertical Mount Gasket Replacement flat gasket is to be placed between the mounting surface and the vertical mount base. (Must order multiples of 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). (Must order multiples of 5.)	855T-AVTG
	Mounting Screw Washer Kit Replacement flat washers are used to provide a seal where the mounting screw meets the pole and vertical bases (not required for surface mount bases). (1 kit includes 20 pcs.)	855T-AMSG
	Description	Cat. No.
	Junction Boxes Black Surface Mount with PG16 Threaded Side Entrance	855T-BSMP
	Black Surface Mount with M20 Threaded Side Entrance	855T-BSMR
	Black Surface Mount with 1/2 in NPT Threaded Side Entrance	855T-BSMN
	Black Vertical Mount with PG16 Side Entrance	855T-BVMP
	Black Vertical Mount with M20 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
	Package of 4 (M5 x 40 screws) for Mounting Pole Mount Base to Junction Box	855T-AJBS
	Vertical Mount Bracket For use with 855T Surface Mount Base	440E-A17172

Bulletin 855T

70mm Control Tower™ Stack Lights

Specifications

Mechanical Ratings				
Shock and Vibration		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.		
		1 Module Stack	3 Module Stack	5 Module Stack
Standard Bases	Surface Mount Base or 10 cm Aluminum Pole Base	150 G Shock 5 G Vibration	45 G Shock 1.5 G Vibration	35 G Shock 0.75 G Vibration
	Vertical Base or 25 cm Aluminum Pole Base	95 G Shock 3.5 G Vibration	30 G Shock 1.25 G Vibration	20 G Shock 0.5 G Vibration
DeviceNet Bases	Surface Mount Base or 10 cm Aluminum Pole Base	50 G Shock 5 G Vibration	45 G Shock 1.5 G Vibration	35 G Shock 0.75 G Vibration
	Vertical Base or 25 cm Aluminum Pole Base	50 G Shock 3.5 G Vibration	30 G Shock 1.25 G Vibration	20 G Shock 0.5 G Vibration
Recommended Wire Sizes		0.5...2.5 mm2 (22...14 AWG)		
Recommended Terminal Torque		0.8 Nm (7 lb-in.)		
Environmental Ratings				
Ingress Ratings	Light Modules with Cap	IP65/UL Type 4/4X/13		
	Light Modules/with Sound	IP65/UL Type 4/4X/13		
	Sound Modules (SA1, SA2, TA1, TA2)	IP54/UL Type 12		
	Sound Modules (SA3, TA3)	IP65/UL Type 4/4X/13		
	Surface, Vertical, Tube Mount Bases	IP65/UL Type 4/4X/13		
	Pole Mount Bases (Aluminum)	IP65/UL Type 4/13		
	Pole Mount Bases (Stainless Steel)	IP65/UL Type 4/4X/13		
Temperature Ratings — All Products	Operating Temperature	-25...+70 °C (-13...+158 °F)		
	Storage Temperature	-40...+85 °C (-40...+185 °F)		
Materials				
Bases, Cap, Lens Cover, Sound Module Housings		Polycarbonate (94V-0)		
Lenses		Polycarbonate (94V-2)		
Lamp Socket		Polycarbonate (94V-2)		
Rubber Seals and Gaskets		Nitrile Rubber		
Pole (for aluminum pole assembly)		Aluminum		
Pole Base Footing (for aluminum pole base)		Glass-Filled Nylon 66		
Pole (for stainless steel pole assembly)		Stainless Steel		
Pole Base Footing (for stainless steel pole base)		Zinc		
Insulation Sleeve (for pole insulation)		Polystyrene/Polyphenylene Ether Blend		
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		
Certifications				
UL/cUL File Number		All products — E14840		
CE		Standard Bases, Light Modules and Sound Modules— EN 60947-5-1 DeviceNet Bases — EN 60947-5-1, EN 50081-2		

70mm Control Tower™ Stack Lights

Specifications, Continued

Performance Ratings					
Description		12V AC/DC	24V AC/DC	120V AC	240V AC
Light Output	Steady Incandescent	0.5 MSCP 6.3 Lumens	2.5 MSCP 31.4 Lumens	3.0 MSCP 37.7 Lumens	0.49 MSCP 6.2 Lumens
	Flashing Incandescent	0.5 MSCP 6.3 Lumens	2.5 MSCP 31.4 Lumens	3.0 MSCP 37.7 Lumens	0.49 MSCP 6.2 Lumens
	Strobe	3 Joules			
	Steady, Flashing, Socket Mount LED Red	6800 mcd			
	Steady, Flashing, Socket Mount LED Green	10000 mcd			
	Steady, Flashing, Socket Mount LED Amber	4000 mcd			
	Steady, Flashing, Socket Mount LED Blue	3000 mcd			
	Steady, Flashing, Socket Mount LED White	2700 mcd			
Operating Voltage					
Description		12V AC/DC	24V AC/DC	120V AC	240V AC
Light Only Modules		12V AC/DC (± 10%)	24V AC/DC (± 10%)	110V AC 50 Hz (± 10%)	230V AC 50 Hz (± 10%)
Light Modules/with Sound				120V AC 60 Hz (± 10%)	240V AC 60 Hz (± 10%)
Sound Modules					
Lamp Life Ratings (Design Life) Average Life Under Static, No Vibration, Conditions					
Description		12V AC/DC	24V AC/DC	120V AC	240V AC
Incandescent Modules†‡		8000 hrs	7000 hrs	3000 hrs	1600 hrs
LED Modules		100000 hrs			
Strobe Modules		15000 hrs			
Sound Modules		20000 hrs			

† First failures at about 35% of average life. Failures under severe vibration at 44% of average life.

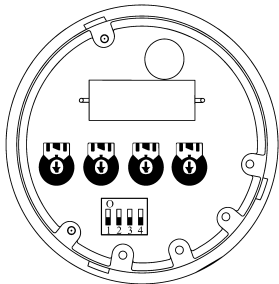
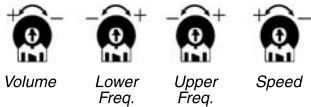
‡ Using lamps in flashing applications can reduce published life expectancy by as much as 50%.

Current Consumption					
Description		12V AC/DC	24V AC/DC	120V AC	240V AC
Light Only Modules	Steady Incandescent	208 mA	271 mA	58 mA	23 mA
	Steady or Flashing LED	47 mA	28 mA	11 mA	11 mA
	Strobe	240 mA	170 mA	50 mA	35 mA
Light Modules/with Sound	Steady Incandescent/with Sound	218 mA	281 mA	78 mA	43 mA
	Flashing Incandescent/with Sound	218 mA	281 mA	78 mA	43 mA
	Steady or Flashing LED/with Sound (Red, Amber, Yellow)	100 mA	62 mA	22.5 mA	20 mA
	Flashing Incandescent/with Sound	65 mA	35 mA	22.5 mA	20 mA
	Steady or Flashing LED/with Sound (Green, Blue, White)	250 mA	180 mA	70 mA	55 mA
Transducer Style Sound Modules	Single and Two Circuit Modules	30 mA	65 mA	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 mA	45 mA	43 mA	40 mA
DeviceNet Bases		—	70 mA	—	—
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		Flashing frequency approximately 1.5 Hz Time ON/Time OFF = 1:1			
Strobe Modules		Flashing frequency 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 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		Tone frequency is 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			
LED Steady/with Sound		Sound Pulsing Frequency — 1.5 Hz			
LED Flashing/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			
dB Rating (Sound Modules)					
All dB(A) ratings determined at a distance of 1 meter from sound module					
Selectable Tone Sound Module (SA1, TA1)		Maximum volume ranges from 64...103 dB(A) (volume adjustable) Based on tone 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 92 dB, selectable via dip switch			
Piezo Light Modules and Light Modules/with Sound (set at continuous or pulsing tone)		High 107 dB / Low 92 dB, selectable via dip switch			
Leakage Current Impact					
All light modules, sound modules, and light/sound modules are capable of absorbing 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 which emit leakage current. The table below identifies modules that were affected by an output module emitting a maximum of 3 mA. A dry contact can be used to eliminate the effect of leakage current.					
12V AC/DC, 24V AC/DC, 120V AC, 240V AC		All light/sound combination modules			
DeviceNet Bases					
Baud Rate Options		125 K, 250 K, 500 K, Autobaud			

70mm Control Tower™ Stack Lights

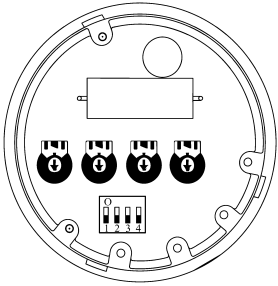
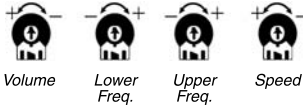
Tone Tables

Transducer Style Single Tone/Single Circuit Sound Module (SA1)

	Dip Switch Position	Tone Description		Speed	Upper Frequency	Lower Frequency	Volume
		Triangle Tone		7...22 Hz	1500 Hz	500 Hz	80... 100 dB(A)
		Continuous Tone		—	*	500 Hz	83... 100 dB(A)
		Interrupted Tone		0.5... 1.5 Hz	*	500... 1500 Hz	83... 103 dB(A)
		Changing Tone		0.5... 1.5 Hz	500... 1500 Hz	500... 1500 Hz	83... 103 dB(A)
		Saw Tooth Tone Ascending		0.5... 1.5 Hz	500... 1500 Hz	500... 1500 Hz	83... 103 dB(A)
		Saw Tooth Tone Descending		0.5... 1.5 Hz	500... 1500 Hz	500... 1500 Hz	83... 103 dB(A)
		Sine Wave Tone		0.5... 1.5 Hz	500... 1500 Hz	500... 1500 Hz	82... 102 dB(A)
		DIN-Emergency Signal	DIN 33404	1 Hz	1200 Hz	500 Hz	82... 102 dB(A)
		Siren (Non- Repeating)		2...4 s	1500 Hz	500 Hz	83... 103 dB(A)
		Signal Horn Continuous Tone		—	*	100... 350 Hz	64... 80 dB(A)
		Three Tone Gong		2...4 s	660 Hz 550 Hz 440 Hz		76... 95 dB(A)
		Two Tone Gong		2...3 s	550 Hz 440 Hz		75... 93 dB(A)
		Gong		1...3 s	*	500... 1500 Hz	75... 93 dB(A)

* Set to maximum (+).

Transducer Style Dual Tone/Dual Circuit Sound Module (TA1)

 <i>Adjustable Sound Settings</i>	Dip Switch Position	Tone A		Tone B	
		Triangle Tone		Continuous Tone	
 <i>Rotated View of Sound Settings</i>		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	
		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	

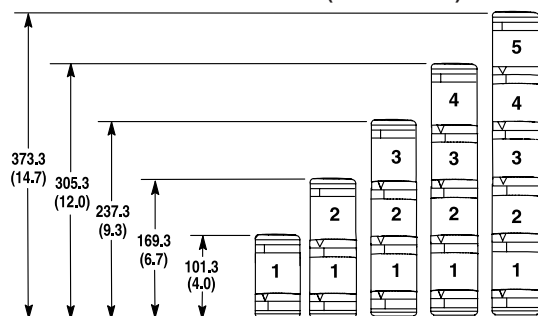
70mm Control Tower™ Stack Lights

Approximate Dimensions

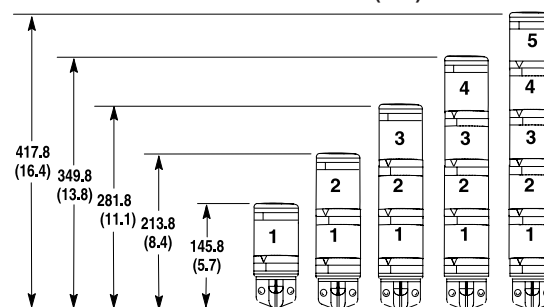
Dimensions in millimeters (inches). Dimensions are not intended to be used for manufacturing purposes.

Assembled Stacks — Light Modules Only

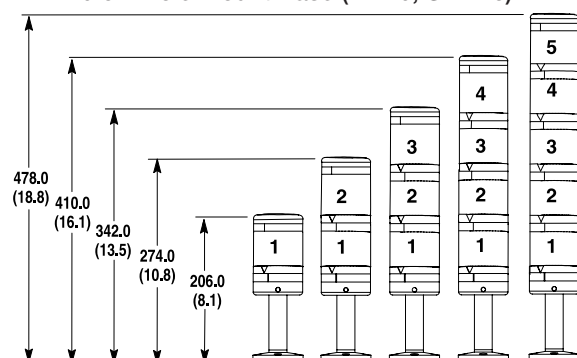
Surface Mount Base (SB and CB)



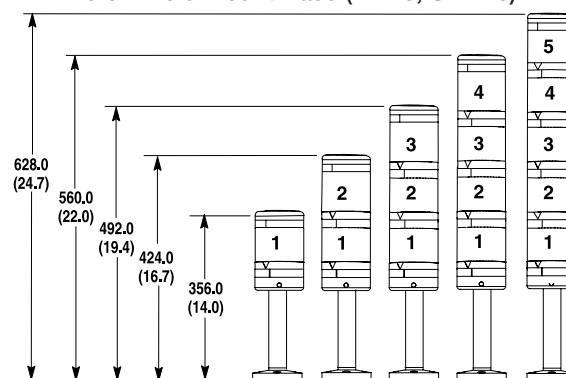
Vertical Mount Base (VM)



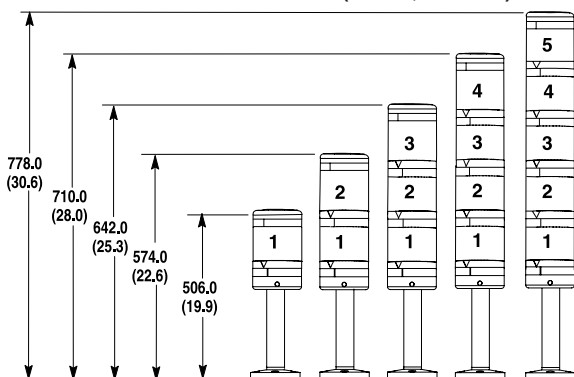
10 cm Pole Mount Base (PM10, SPM25)



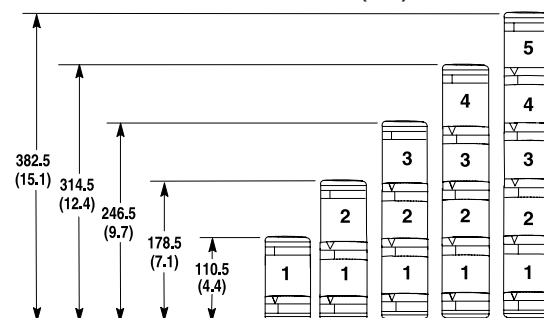
25 cm Pole Mount Base (PM25, SPM25)



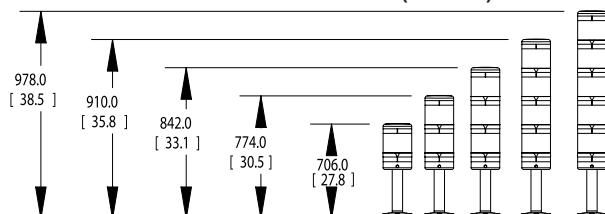
40 cm Pole Mount Base (PM40, SPM40)



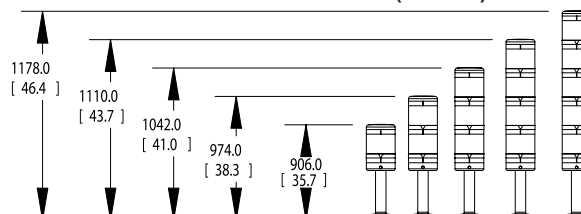
Tube Mount Base (TM)



60 cm Pole Mount Base (SPM60)



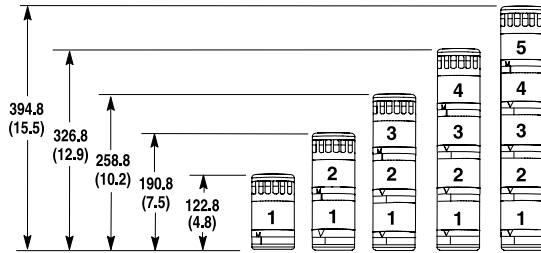
80 cm Pole Mount Base (SPM80)



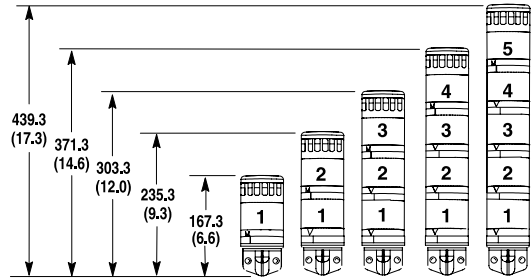
Dimensions in millimeters (inches). Dimensions are not intended to be used for manufacturing purposes.

Assembled Stacks — Light Module/with Sound on Top*

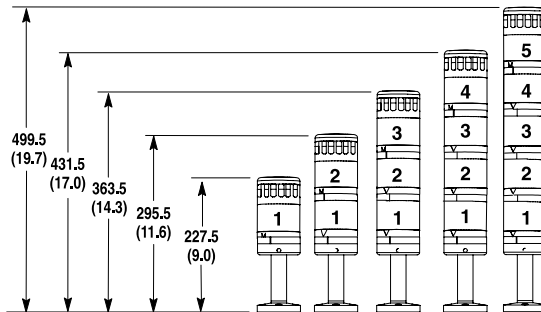
Surface Mount Base (SB and CB)



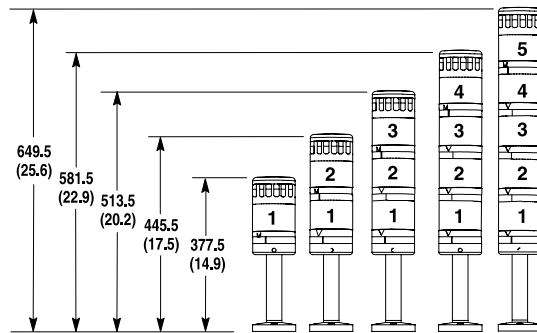
Vertical Mount Base (VM)



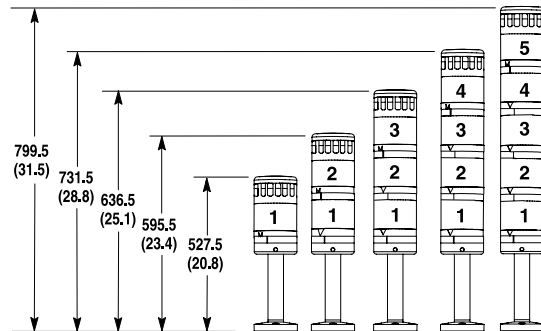
10 cm Pole Mount Base (PM10, SPM10)



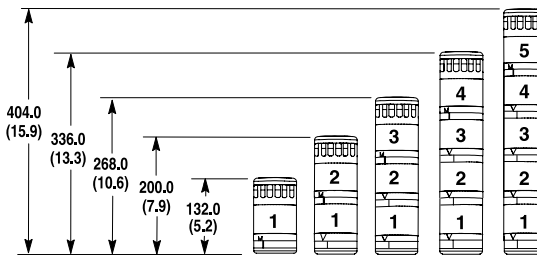
25 cm Pole Mount Base (PM25, SPM25)



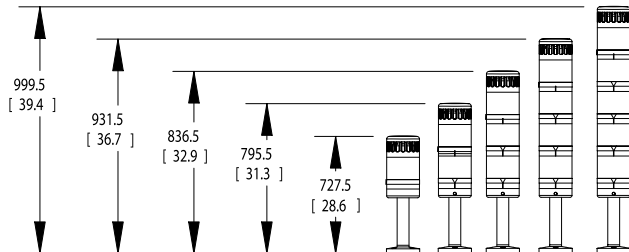
40 cm Pole Mount Base (PM40, SPM40)



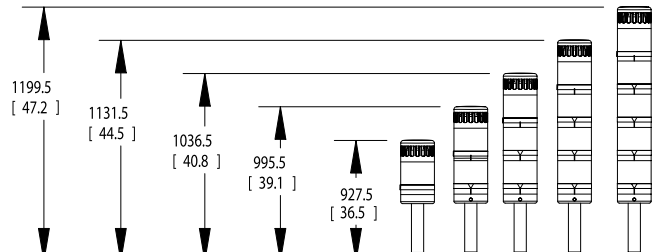
Tube Mount Base (TM)



60 cm Pole Mount Base (SPM60)



80 cm Pole Mount Base (SPM80)



* A 2-circuit light/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.

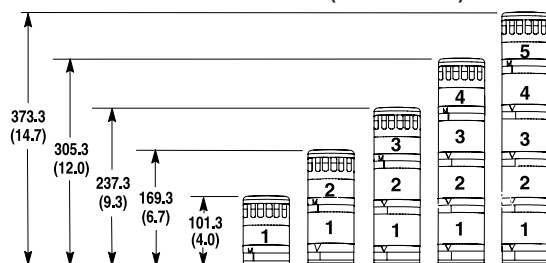
70mm Control Tower™ Stack Lights

Approximate Dimensions, Continued

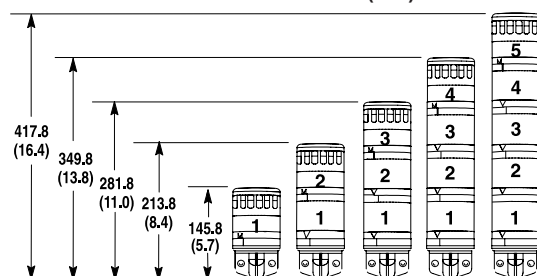
Dimensions in millimeters (inches). Dimensions are not intended to be used for manufacturing purposes.

Assembled Stacks — Sound Module on Top*

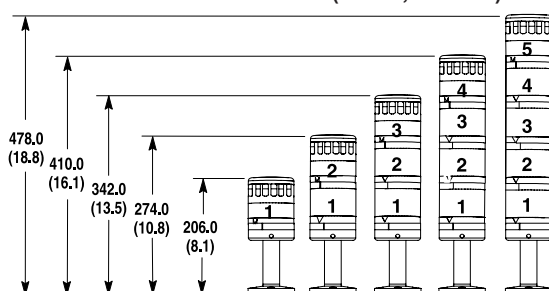
Surface Mount Base (SB and CB)



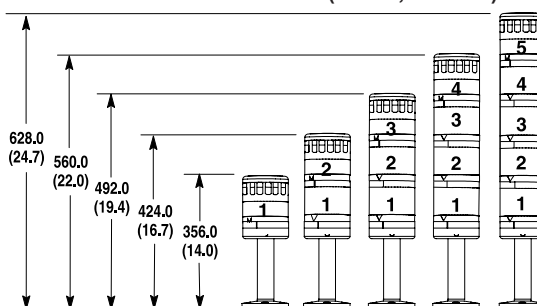
Vertical Mount Base (VM)



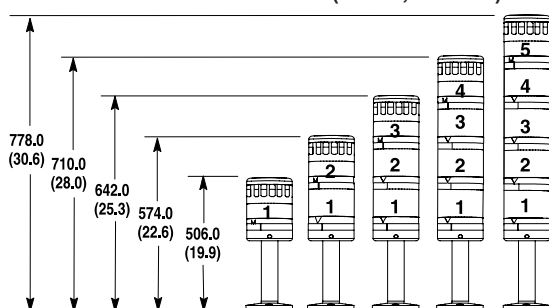
10 cm Pole Mount Base (PM10, SPM10)



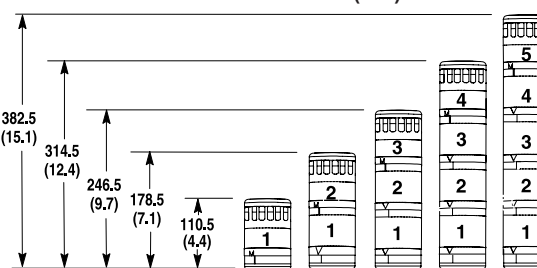
25 cm Pole Mount Base (PM25, SPM25)



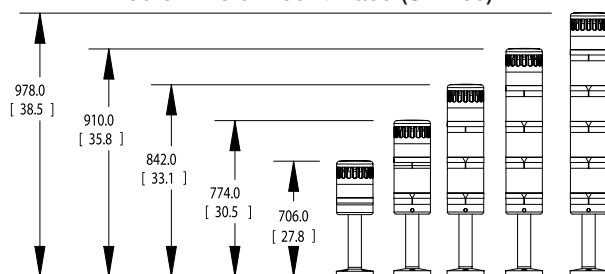
40 cm Pole Mount Base (PM40, SPM40)



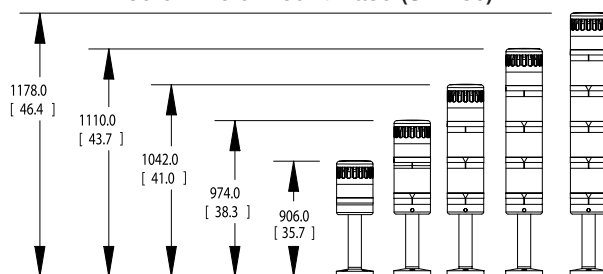
Tube Mount Base (TM)



60 cm Pole Mount Base (SPM60)



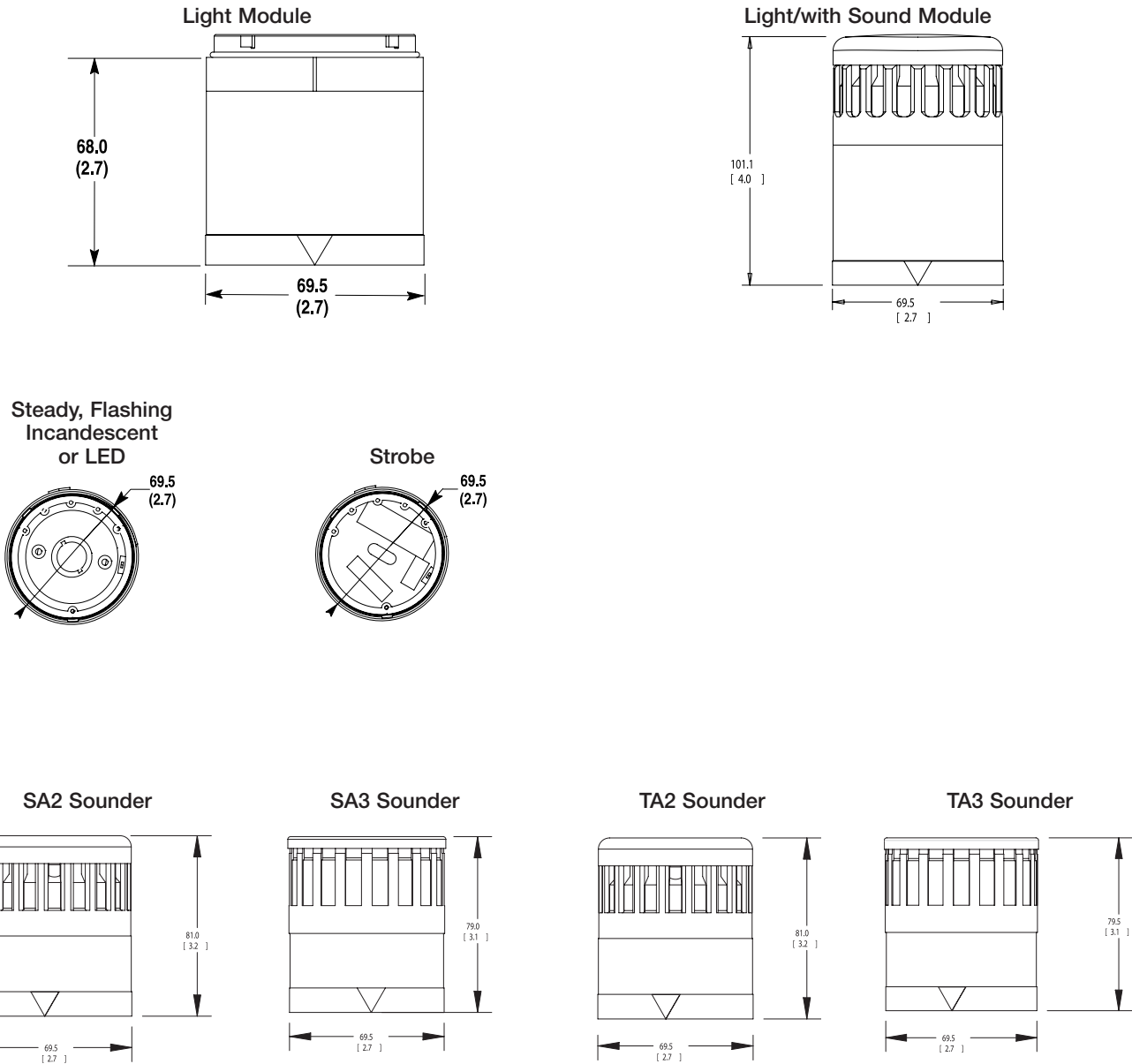
80 cm Pole Mount Base (SPM80)



* A 2-circuit/dual tone 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.

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

Component Dimensions



Bulletin 855T

70mm Control Tower™ Stack Lights

Approximate Dimensions, Continued

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

Component Dimensions

