Bulletin 855E/855T Control Tower Stack Lights

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

Bulletin 855E — 50 mm Control Tower Stack Lights

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

Light Modules



a			
	Voltage		
Code	Description		
00	0250V 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	

Flashing Incandescent

(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

a Housing Color	
Code	Description
В	Black
G	Gray

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

(
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

855E



Pole-mount Bases



Quick-release Base

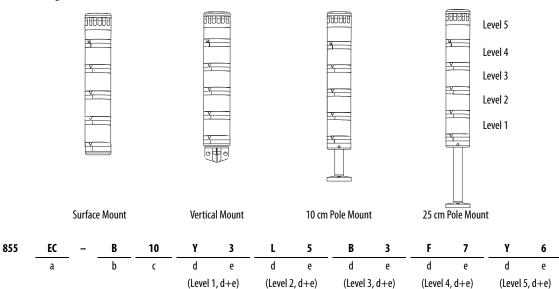
a		
Housing Color		
Code	Description	
В	Black	
G	Gray	

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

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

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

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



a			
Base Type			
Code	Code Description		
EC	Surface mount - 1/2 in. NPT threading		
ES	Surface mount - PG16		
EV	Vertical mount		
EM	25 mm tube mount		
EP	10 cm (3.9 in.) pole mount		
EE	25 cm (9.8 in.) pole mount		

b		
Base & Cap Color		
Code	Description	
В	Black	
G	Gray	

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

d					
	Module Type				
Code	Description				
D	Steady incandescent				
F	Flashing incandescent				
Υ	Steady LED				
L	Flashing LED				
В	Strobe				
Р	Single-circuit piezo sound module				
Q	Two-circuit piezo sound module ⁽¹⁾				

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

- $(1) \quad \text{If the two-circuit sound module (option Q in Table \underline{d}) is selected, the maximum number of light modules that are allowed is three.}$
- (2) Sound module option can only be selected with Module Type option P or Q in Table d. They must be in the top position of the stack.

Accessories — Bulletin 855E/855T

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

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

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 98 - Gaskets

	Description	Cat. No.
	Lens O-ring Seal	855E-ALSG ⁽¹⁾
	Replacement rubber 0-rings are to be installed between all bases, light, sound, and light/with sound modules.(Package quantity = 5)	855T-ALSG ⁽²⁾
	Surface Mount Gasket	855E-ASFG ⁽³⁾
	Replacement flat gasket is to be placed between the mounting surface and the surface mount base. (Package quantity $=$ 5)	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.)	855T-APFG
	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.	
	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	
O	Replacement 0-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
6000	Mounting Screw Washer Kit	
0 0 0 0 0 0	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.

Table 99 - 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	855T-AJBS
 (M5 x 40 screws) for mounting Pole Mount Base to Pole Connection Box	8551-AJB3

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

Table 100 - Mounting Kits

	Description	Cat. No.
90	Vertical Mount Kit Kit includes vertical bracket and set of three sealing washers. For use with 855E surface mount base.	855E-AVM
8	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

⁽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.

Specifications

Table 101 - 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]	
	One module stack	150	5	
Surface-mount Base or 10 cm Aluminum Pole Base	Three module stack	45	1.5	
	Five module stack	35	0.75	
	One module stack	95	3.5	
Vertical Base or 25 cm Aluminum Pole Base	Three module stack	30	1.25	
	Five module stack	20	0.5	
Recommended Wire Sizes		0.51.5 mm ² (2216 AWG)		
Recommended Terminal Torque		0.87 N•m (7 lb•in)		

Table 102 - Environmental

Attribute		Value	
	Light Modules with Cap	UL Type 4/4X/13, IP66	
	Sound Modules	UL Type 4/4X/13, IP66	
Ingress Ratings	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 103 - 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 104 - 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				
	Red	9002240 mcd				
6. 1.51.1. 6.1.	Green	9001800 mcd				
Steady, Flashing Socket Mount LED	Amber	14003550 mcd				
	Blue	224560 mcd				
	White and Yellow	9001800 mcd				

Table 105 - Operating Voltage

Device	Operating Voltage				
Device	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.

Table 107 - 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 108 - Flashing and Tone Frequency

Attribute	Value				
Flashing Frequency (Light Only Modules)					
Flashing Incandescent Modules Flashing Incandescent Modules Flashing Incandescent Modules 24V, 120V, and 240V modules approximately 2 Hz Time 0N/Time 0FF = 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 (L	ight Modules/with Sound Set at Continuous Tone)				
Tone Frequency	Tone frequency is preset at 2800 Hz				
Flashing and Tone Pulsing Frequer	ncies (Light Modules/with Sound Set at Pulsing Tone)				
Tone Frequency	Tone frequency is preset at 2800 Hz				

Table 109 - 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 110 - Leakage Current Impact

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

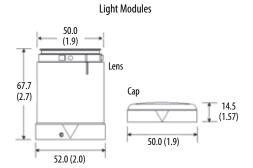
Table 111 - Standards and Certifications

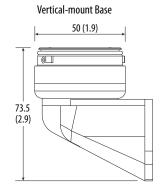
Attribute	Bulletin 855E — 50 mm Control Tower Stack Lights	
Standards Compliance	• UL 508 • EN/IEC 60947-1 • CSA C22.2 No. 14 • EN/IEC 60947-5-1	
Certifications	c-UL-us Listed (File No. E14840, Guides NKCR, NKCR7)CE Marked	

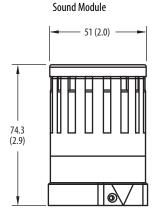
⁽²⁾ Flashing applications can reduce life to 50% of average life.

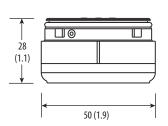
Approximate Dimensions

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









Surface-mount Base

