Hazardous Location Horns and Beacons

Product Overview

				
Bulletin	**855XH**	**855XB**	**855XC**	**855XL**
Type	**Alarm Horn Sounders**	**Xenon Strobe Beacons**	**Combined Horn Sounder and Strobe Beacon**	**Public Address Loudspeakers**
Voltages Available	10…30V DC, 48V DC, 115…120V AC 50/60 Hz, 220…230V AC 50/60 Hz	12V DC, 24V DC, 48V DC, 115…120V AC 50/60 Hz, 220…230V AC 50/60 Hz	24V DC, 48V DC, 115…120V AC 50/60 Hz, 220…230V AC 50/60 Hz	—
Illumination Type	—	Strobe 5 or 10 Joule	Strobe 5 Joule	—
Flash Rate	—	1 Hz		—
Lens Colors Available	—	Red, Green, Amber, Blue, Yellow, Clear	Red, Green, Amber, Blue, Yellow, Clear	—
Environmental Rating	NEMA Type 4/4X/13, IP66/67			
Operating Temp Range	–20…+55 °C			
Sound Output Level	110…117 dB	—	110 dB	—
Horn Tones	45 selectable tones, 3 stages	—	45 selectable tones, 3 stages	—
Cover, Base, and Beacon Housing Material	PPS Glass-Filled Plastic	PPS Glass-Filled Plastic **Beacon Lens:** Glass	PPS Glass-Filled Plastic **Beacon Lens:** Glass	PPS Glass-Filled Plastic
Certifications	cULus Listed, CE Marked			
Product Selection	**Page 11-65**	**Page 11-65**	**Page 11-66**	**Page 11-66**

Bulletin 855X — Hazardous Location Horns and Beacons

- NEMA Type 4/4X/13, IP66
- Glass Reinforced Plastic (GRP) and impact resistant ABS
- Easy to install with fully adjustable (180°) mounting bracket at 18° increments
- 1/2 in. NPT conduit entry and pre-wired with flying leads
- Electronic horns provide extremely low power consumption and long life

Functions include:

- Electronic Horn Sounder, multi-tone and multi-stage
- Xenon Strobe Beacon
- Combined Electronic Horn with Xenon Strobe
- Public Address Loudspeaker

Certifications

CE Marked
cULus Listed (File No. E305538) for Class I, Division 2, Groups A, B, C and D; Class II, Division 2, Groups F & G, and Class III, Division 1 & 2

Table of Contents

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

Alarm Horn Sounders

855XH – BN D30 B
a b 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/45 Tone/3 Stage
B	117 dB @ 1 m/45 Tone/3 Stage

Supply Voltage	Sound Output	Cat. No.
10...30V DC	110 dB @ 1 m, 45 selectable tones, 3 stages	855XH-BND30A
	117 dB @ 1 m, 45 selectable tones, 3 stages	855XH-BND30B
115...120V AC	110 dB @ 1 m, 45 selectable tones, 3 stages	855XH-BNA10A
	117 dB @ 1 m, 45 selectable tones, 3 stages	855XH-BNA10B

Xenon Strobe Beacons

855XB – BN A10 B 4
a b c d

a

Product Type	
Code	Description
BN	1/2 in. NPT Conduit Entrance, Black Housing

b

Voltage	
Code	Description
D12	12V DC*
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

d

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

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

Supply Voltage	Beacon Type	Lens Color	Cat. No.
24V DC	Xenon Strobe - 5 J, 1 Hz	Red	855XB-BND24A4
		Amber	855XB-BND24A5
	Xenon Strobe - 10 J, 1 Hz	Red	855XB-BND24B4
		Amber	855XB-BND24B5
115...120V AC	Xenon Strobe - 5 J, 1 Hz	Red	855XB-BNA10A4
		Amber	855XB-BNA10A5
	Xenon Strobe - 10 J, 1 Hz	Red	855XB-BNA10B4
		Amber	855XB-BNA10B5

Hazardous Location Horns and Beacons

Product Selection, Continued

Combined Horn Sounder & Strobe Beacon

855XC – BN A10 B 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, 45 Tones, 3 Stages

d

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

Beacon Type	Supply Voltage	Beacon Lens Color	Cat. No.
Xenon 5 J, 110 dB at 1 m, 45 selectable tones, 3 stages	24V DC	Green	855XC-BND24A3
		Red	855XC-BND24A4
		Amber	855XC-BND24A5
	115 V AC	Green	855XC-BNA10A3
		Red	855XC-BNA10A4
		Amber	855XC-BNA10A5

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

Power Selection - Transformer	
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 Ohm
16R	16 Ohm

c

Power Handling	
Code	Description
A	15 W RMS

Power Handling	Power Selection	Cat. No.
15 W RMS	70V Line (Tappings: 15W 7.5W 3W 1W)	855XL-BN70A
	8 Ohm	855XL-BN8RA
	16 Ohm	855XL-BN16RA

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Device		855XH Horn	855XB Beacon	855XC Horn-Beacon Combination	855XL PA Loudspeaker
Mechanical Ratings					
Shock		30 G Peak			
Vibration		2 G Peak			
Environmental Ratings					
Ingress Ratings		IP66/67 and UL Type 4/4X13, IP 66/67			
Temperature Ranges	Operating	–4…+131 °F (–20…+55 °C)			
	Storage	–4…+167 °F (–20…+75 °C)			
Materials					
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			
Performance Ratings					
Sound Output	dB @ 1 meter	110 or 117 dB	N/A	110 dB	N/A
Xenon Lamp Rating		N/A	5 or 10 Joules	5 Joules	N/A
Flashing Frequency		N/A	1 Hz	1 Hz	N/A

Operating Ratings (Voltage and Current Consumption)

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

Operating Ratings

Device	Impedance	Input	Wattage	Max. I/P Volts
855XL PA Loudspeaker ✶	8 Ω	8 Ω	15 W	10.95V
	16 Ω	16 Ω	15 W	15.49V
	100V Line	100V Line	15 W	100V
	70V Line	70V Line	15 W	70V

✶ **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 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.

Temperature Ratings

Device	Hazardous Location	Code (Max. Operating Temperature) @ 55 °C Ambient	Code (Max. Operating Temperature) @ 40 °C Ambient
855XB- 5 Joule Beacon	Class I, Division 2, Groups A, B, C, D	T2D (215 °C)	T3 (200 °C)
	Class II, Division 2, Groups F and G	T5 (100 °C)	T6 (85 °C)
	Class III, Divisions 1 and 2	T5 (100 °C)	T6 (85 °C)
855XB- 10 Joule Beacon	Class I, Division 2, Groups A, B, C, D	T2A (280 °C)	—
	Class II, Division 2, Groups F and G	T4A (120 °C)	T5 (100 °C)
	Class III, Divisions 1 and 2	T4A (120 °C)	T5 (100 °C)
855XH- 110 dB Sounder	Class I, Division 2, Groups A, B, C, D	T3C (160 °C)	T4 (135 °C)
	Class II, Division 2, Groups F and G	T6 (85 °C)	—
	Class III, Divisions 1 and 2	T6 (85 °C)	—
855XH- 117 dB Sounder	Class I, Division 2, Groups A, B, C, D	T3C (160 °C)	T4 (135 °C)
	Class II, Division 2, Groups F and G	T6 (85 °C)	—
	Class III, Divisions 1 and 2	T6 (85 °C)	—
855XC- Sound/Strobe Combination	Class I, Division 2, Groups A, B, C, D	T2D (215 °C)	T3 (200 °C)
	Class II, Division 2, Groups F and G	T5 (100 °C)	T6 (85 °C)
	Class III, Divisions 1 and 2	T5 (100 °C)	T6 (85 °C)
855XL- Loudspeaker	Class I, Division 2, Groups A, B, C, D	T4 (135 °C)	T4A (120 °C)
	Class II, Division 2, Groups F and G	T6 (85 °C)	—
	Class III, Divisions 1 and 2	T6 (85 °C)	—

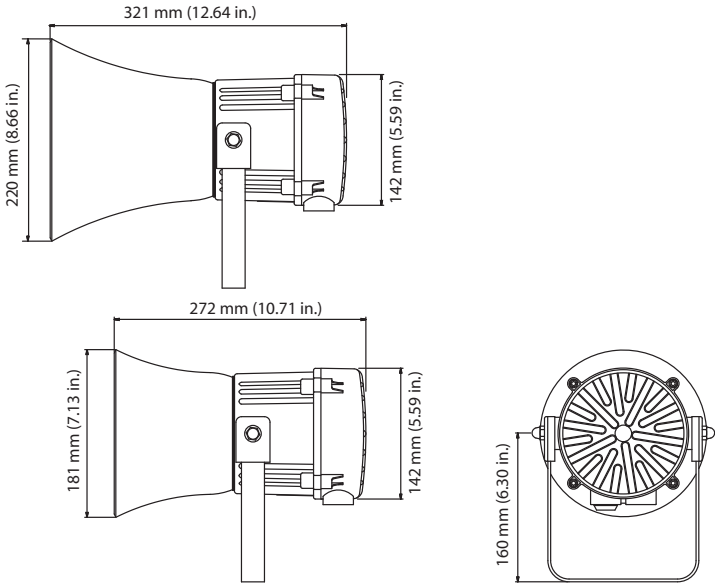
Hazardous Location Horns and Beacons

Specifications, Continued

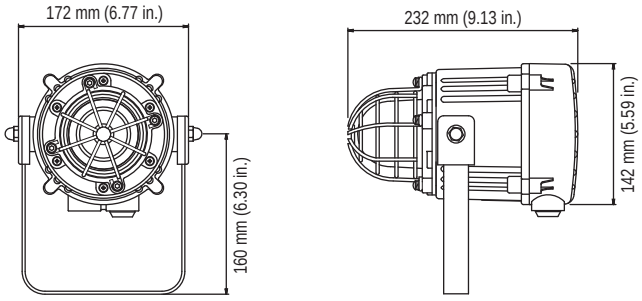
Tone Selection Table for 855XH and 855XC units										
		Switch								
Stage 1	Frequency Description	1	2	3	4	5	6	Stage 2	Stage 3
1	340 Hz, Continuous	0	0	0	0	0	0	Tone 2	Tone 5
2	800/1000 Hz @ 0.25 s, Alternating	1	0	0	0	0	0	Tone 17	Tone 5
3	500/1200 Hz @ 0.3 Hz s, Slow Whoop	0	1	0	0	0	0	Tone 2	Tone 5
4	800/1000 Hz @ 1 Hz, Sweeping	1	1	0	0	0	0	Tone 6	Tone 5
5	2400 Hz, Continuous	0	0	1	0	0	0	Tone 3	Tone 20
6	2400/2900 Hz @ 7 Hz, Sweeping	1	0	1	0	0	0	Tone 7	Tone 5
7	2400/2900 Hz @ 1 Hz, Sweeping	0	1	1	0	0	0	Tone 10	Tone 5
8	500/1200/500 Hz @ 0.3 Hz, Sweeping	1	1	1	0	0	0	Tone 2	Tone 5
9	1200/500 Hz @ 1 Hz, - DIN *PFEER P.T.A.P.*	0	0	0	1	0	0	Tone 15	Tone 2
10	2400/2900 Hz @ 2 Hz, Alternating	1	0	0	1	0	0	Tone 7	Tone 5
11	1000 Hz @ 1 Hz, Intermittent	0	1	0	1	0	0	Tone 2	Tone 5
12	800/1000 Hz @ 0.875 Hz, Alternating	1	1	0	1	0	0	Tone 4	Tone 5
13	2400 Hz @ 1 Hz, Intermittent	0	0	1	1	0	0	Tone 15	Tone 5
14	800 Hz, 0.25 s ON, 1 s OFF, Intermittent	1	0	1	1	0	0	Tone 4	Tone 5
15	800 Hz, Continuous	0	1	1	1	0	0	Tone 18	Tone 5
16	660 Hz, 150 ms ON, 150 ms OFF, Intermittent	1	1	1	1	0	0	Tone 2	Tone 27
17	544 Hz (100 ms)/440 Hz (400 ms), - NF S 32-001	0	0	0	0	1	0	Tone 2	Tone 5
18	660 Hz, 1.8 s ON, 1.8 s OFF, Intermittent	1	0	0	0	1	0	Tone 2	Tone 5
19	1.4 kHz…1.6 kHz 1s, 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 & 2000 Hz @ 0.5 s, Aletrnating - Signapore	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

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

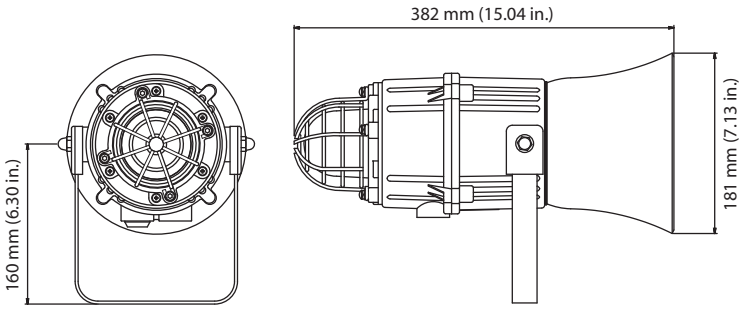
Horns



Beacons



Horn & Beacon Combinations



Public Address Loudspeakers