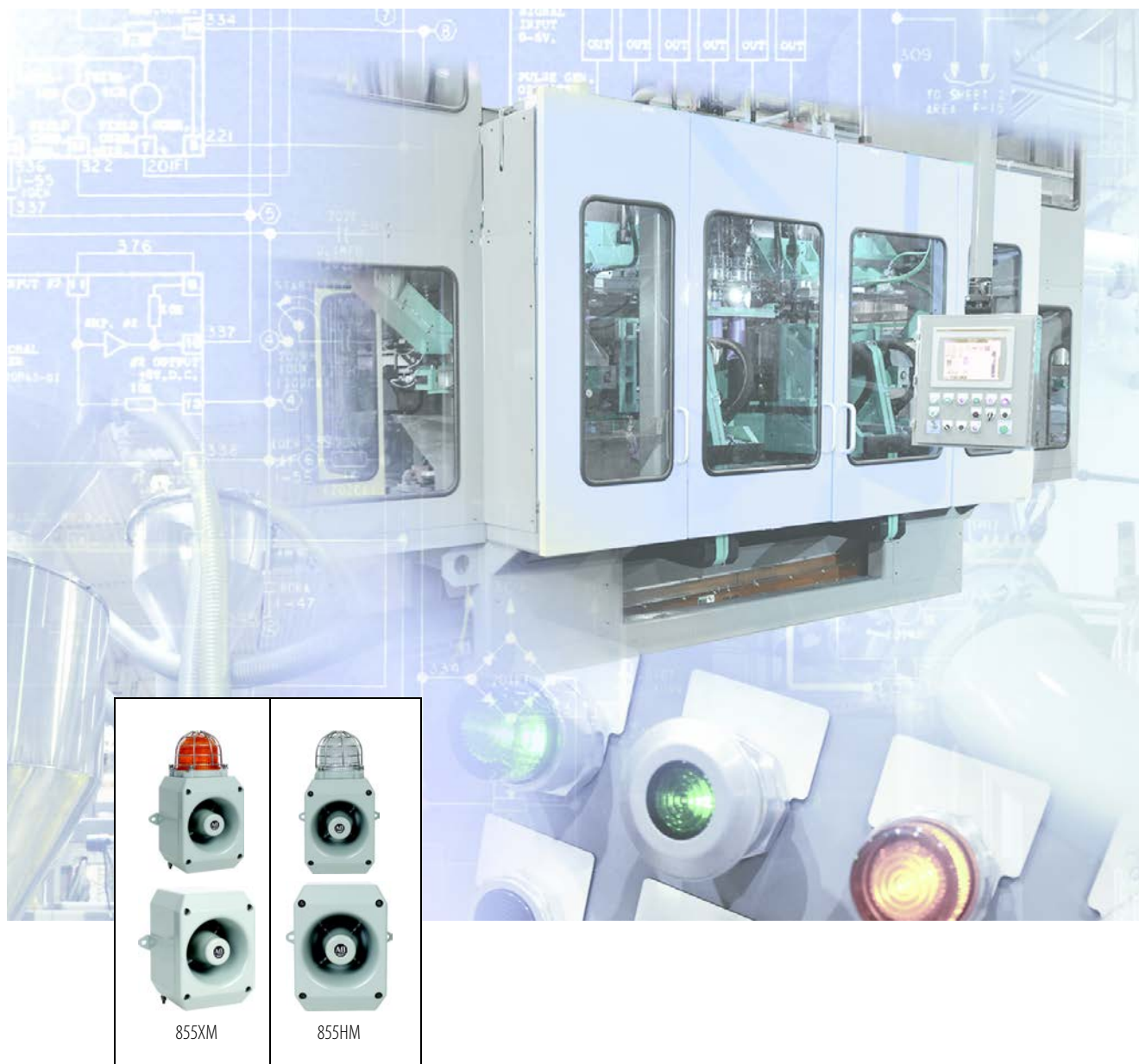


## 855 Metal Horns

Bulletin Numbers 855HM, 855XM



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## What's Inside

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## Summary of Changes

This publication contains new and updated information as indicated in the following table.

Topic	Page
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# 855XM Hazardous Location Metal Horns

## Features

- Ingress rating — UL Type 4/4X/13/3R, IP66
- Marine-grade aluminum housing with gray powder-coat finish
- Four stages/circuits and 64 tones to select via DIP switch
- Two M20x1.5 mm conduit entries
- Available with attached 5 or 10 Joule xenon strobe beacon in clear, red, and amber colors



## Standards Compliance

- cULus 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 on [page 10](#))
- **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 (T<sub>a</sub> -40...+122 °F [-40...+50 °C])
- **Ex Rating (Horn with 5 J Strobe):** II 3G Ex nA IIC T2 Gc and II 3D Ex tc IIIC T90 °C Dc (T<sub>a</sub> -40...+122 °F [-40...+50 °C])
- **Ex Rating (Horn with 10 J Strobe):** II 3G Ex nA IIC T1 Gc and II 3D Ex tc IIIC T110 °C Dc (T<sub>a</sub> -40...+122 °F [-40...+50 °C]); [II 3G Ex nA IIC T2 Gc for T<sub>a</sub> -40...+104 °F (-40...+40 °C)]

# Product Selection

## Metal Horns and Horns with Attached Beacon

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 ❶
D30	10...30V DC ❷
A10	115...125V AC 60 Hz
A20	215...250V AC 50 Hz

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

f	
Beacon Type ❸❹	
Code	Description
Blank	No light
A	5J, strobe
B	10J, strobe

g	
Lens Color ❸❹	
Code	Description
Blank	No light
4	Red
5	Amber
7	Clear

- ❶ Voltage code **D24** only valid with beacon code **A** and **B** (Table f).
- ❷ Voltage code **D30** not valid with beacon code **A** and **B** (Table f).
- ❸ Beacon type and lens color must be **Blank** for Cat. No. 855XM-H.
- ❹ Beacon type and lens color cannot be **Blank** for Cat. No. 855XM-C.


## Metal Horns

Supply Voltage	Sound Output	Cat. No.
10...30V DC	116 dB(A) @ 1 m, 64 tones, 4 stages	855XM-HGMD30D
115V AC, 60 Hz	116 dB(A) @ 1 m, 64 tones, 4 stages	855XM-HGMA10D
230V AC, 50 Hz	116 dB(A) @ 1 m, 64 tones, 4 stages	855XM-HGMA20D

## Metal Horns with Attached Beacon

Beacon Type and Horn Output	Supply Voltage	Beacon Lens Color	Cat. No.
Xenon, 5J, 116 dB(A) @ 1 m 64 tones, 4 stages	20...28V DC	Red	855XM-CGMD24DA4
		Amber	855XM-CGMD24DA5
		Clear	855XM-CGMD24DA7
	115V AC, 60 Hz	Red	855XM-CGMA10DA4
		Amber	855XM-CGMA10DA5
		Clear	855XM-CGMA10DA7
	230V AC, 50 Hz	Red	855XM-CGMA20DA4
		Amber	855XM-CGMA20DA5
		Clear	855XM-CGMA20DA7
Xenon, 10J, 116 dB(A) at 1 m 64 tones, 4 stages	20...28V DC	Red	855XM-CGMD24DB4
		Amber	855XM-CGMD24DB5
		Clear	855XM-CGMD24DB7
	115V AC, 60 Hz	Red	855XM-CGMA10DB4
		Amber	855XM-CGMA10DB5
		Clear	855XM-CGMA10DB7
	230V AC, 50 Hz	Red	855XM-CGMA20DB4
		Amber	855XM-CGMA20DB5
		Clear	855XM-CGMA20DB7

## Accessories

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

# Tone Table

<b>Tone Selection</b> – To select the required first stage tone set the tone switches 1 to 6 to the tone setting shown in the table below. The table also shows which 2 <sup>nd</sup> , 3 <sup>rd</sup> and 4 <sup>th</sup> stage tones are available for use with the selected first stage tone if more than one tone output stage is required.						
Stage 1 Tone No	Tone Description	Tone Visual	Switch Settings 1 2 3 4 5 6	Stage 2 Alarm (S2)	Stage 3 Alarm (S3)	Stage 4 Alarm (S2 + S3)
1	1000Hz PFEER Toxic Gas	1000Hz	0 0 0 0 0 0	3	2	44
2	1200/500 @ 1Hz DIN / PFEER P.T.A.P.	1200Hz 1s 500Hz 1s	1 0 0 0 0 0	1	3	44
3	1000 @ 0.5Hz(1s on, 1s off) PFEER Gen. Alarm	1000Hz 1s 1s	0 1 0 0 0 0	1	2	44
4	1.4KH-1.6KHz 1s, 1.6KHz-1.4KHz 0.5s NF C 48-265	1600Hz 1s 1400Hz 1s	1 1 0 0 0 0	44	24	1
5	544(100mS)/440 (400mS) NF S 32-001	544Hz 0.1s 440Hz 0.4s	0 0 1 0 0 0	52	19	1
6	1500/500 - (0.5s on, 0.5s off) x3 + 1s gap AS4428	1500Hz 0.5s 500Hz 0.5s 0.5s 0.5s 0.5s 1.5s	1 0 1 0 0 0	7	44	1
7	500-1500Hz Sweeping 2 sec on 1 sec off AS4428	1500Hz 500Hz 2s 1s	0 1 1 0 0 0	6	44	1
8	500/1200Hz @ 0.26Hz(3.3s on, 0.5s off) Netherlands - NEN 2575	1200Hz 500Hz 3.3s 0.5s	1 1 1 0 0 0	44	24	35
9	1000 (1s on, 1s off)x7 + (7s on, 1s off) IMO Code 1a	1000Hz 1s 1s 1s 1s 1s 1s 1s 7s 7s	0 0 0 1 0 0	18	34	1
10	1000 (1s on, 1s off)x7 + (7s on, 1s off) IMO Code 1a	1000Hz 1s 1s 1s 1s 1s 1s 1s 7s 7s	1 0 0 1 0 0	21	34	1
11	420(0.5s on, 0.5s off)x3 + 1s gap ISO 8201 Temporal Pattern	420Hz 0.5s 0.5s 0.5s 1.5s	0 1 0 1 0 0	44	1	8
12	1000(0.5s on, 0.5s off)x3 + 1s gap ISO 8201 Temporal Pattern	1000Hz 0.5s 0.5s 0.5s 1.5s	1 1 0 1 0 0	44	1	8
13	422/775 - (0.85 on, 0.5 off) x3 + 1s gap NFPA - Temporal Code	775Hz 422Hz 0.85s 0.5s 0.85s 0.5s 0.85s 1.5s	0 0 1 1 0 0	44	1	8
14	1000/2000 @ 1Hz Singapore	2000Hz 1000Hz 1s	1 0 1 1 0 0	23	3	35
15	300 Continuous	300Hz	0 1 1 1 0 0	44	24	35
16	440 Continuous	440Hz	1 1 1 1 0 0	44	24	35
17	470 Continuous	470Hz	0 0 0 0 1 0	44	24	35
18	500 Continuous IMO code 2 (Low)	500Hz	1 0 0 0 1 0	44	24	35
19	554 Continuous	554Hz	0 1 0 0 1 0	64	24	35
20	660 Continuous	660Hz	1 1 0 0 1 0	44	24	35
21	800 IMO code 2 (High)	800Hz	0 0 1 0 1 0	44	24	35
22	1200 Continuous	1200Hz	1 0 1 0 1 0	44	24	35
23	2000 Continuous	2000Hz	0 1 1 0 1 0	15	3	35
24	2400 Continuous	2400Hz	1 1 1 0 1 0	48	20	35
25	440 @0.83Hz (50 cycles/minute) Intermittent	440Hz 0.6s 0.6s	0 0 0 1 1 0	1	44	8
26	470 @0.9Hz - 1.1s Intermittent	470Hz 0.55s 0.55s	1 0 0 1 1 0	1	44	8
27	470 @5Hz - (5 cycles/second) Intermittent	470Hz 0.1s 0.1s	0 1 0 1 1 0	1	44	8
28	544 @ 1.14Hz - 0.875s Intermittent	470Hz 0.43s 0.44s	1 1 0 1 1 0	44	24	8
29	655 @ 0.875Hz Intermittent	655Hz 0.57s 0.57s	0 0 1 1 1 0	1	44	8
30	660 @0.28Hz - 1.8sec on, 1.8sec off Intermittent	660Hz 1.8s 1.8s	1 0 1 1 1 0	44	24	8
31	660 @3.34Hz - 150mS on, 150mS off Intermittent	660Hz 0.15s 0.15s	0 1 1 1 1 0	30	24	8

# Tone Table (continued)

32	745 @ 1Hz Intermittent		1 1 1 1 1 0	44	24	8
33	800 - 0.25sec on, 1 sec off Intermittent		0 0 0 0 0 1	53	24	8
34	800 @ 2Hz IMO code 3.a (High) Intermittent		1 0 0 0 0 1	56	24	8
35	1000 @ 1Hz Intermittent		0 1 0 0 0 1	44	24	8
36	2400 @ 1Hz Intermittent		1 1 0 0 0 1	21	24	8
37	2900 @ 5Hz Intermittent		0 0 1 0 0 1	53	24	8
38	363/518 @ 1Hz Alternating		1 0 1 0 0 1	1	8	19
39	450/500 @ 2Hz Alternating		0 1 1 0 0 1	1	8	19
40	554/440 @ 1Hz Alternating		1 1 1 0 0 1	44	24	19
41	554/440 @ 0.625Hz Alternating		0 0 0 1 0 1	1	8	19
42	561/760 @ 0.83Hz (50 cycles/minute) Alternating		1 0 0 1 0 1	1	8	19
43	780/600 @ 0.96Hz Alternating		0 1 0 1 0 1	1	8	19
44	800/1000 @ 2Hz Alternating		1 1 0 1 0 1	5	24	19
45	970/800 @ 2Hz Alternating		0 0 1 1 0 1	1	8	19
46	800/1000 @ 0.875Hz Alternating		1 0 1 1 0 1	53	24	19
47	2400/2900 @ 2Hz Alternating		0 1 1 1 0 1	57	24	19
48	500/1200 @ 0.3Hz Sweeping		1 1 1 1 0 1	44	24	12
49	560/1055 @ 0.18Hz Sweeping		0 0 0 0 1 1	44	24	12
50	560/1055 @ 3.3Hz Sweeping		1 0 0 0 1 1	44	24	12
51	600/1250 @ 0.125Hz Sweeping		0 1 0 0 1 1	44	24	12
52	660/1200 @ 1Hz Sweeping		1 1 0 0 1 1	64	24	12
53	800/1000 @ 1Hz Sweeping		0 0 1 0 1 1	56	24	12
54	800/1000 @ 7Hz Sweeping		1 0 1 0 1 1	57	24	12
55	800/1000 @ 50Hz Sweeping		0 1 1 0 1 1	54	24	12
56	2400/2900 @ 7Hz Sweeping		1 1 1 0 1 1	57	24	12
57	2400/2900 @ 1Hz Sweeping		0 0 0 1 1 1	47	24	12
58	2400/2900 @ 50Hz Sweeping		1 0 0 1 1 1	54	24	12
59	2500/3000 @ 2Hz Sweeping		0 1 0 1 1 1	44	24	12
60	2500/3000 @ 7.7Hz 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

# Specifications

## Mechanical Ratings

Shock and Vibration	Listed below are reference guidelines for maximum shock and vibration standards for the 855XM horn.	
	<b>Shock</b>	<b>Vibration</b>
Metal Horn	40 G	3 G
Metal Horn with Attached Beacon	30 G	3 G

## Environmental Ratings

Ingress Rating	Horn and Horn with Attached Beacon	UL Type 4/4X/13/3R, IP66	
		<b>Operating</b>	<b>Storage</b>
Temperature Ranges	Electronic Horn	-40...+122 °F (-40...+50 °C) ❶	-40...+158 °F (-40...+70 °C)
	Horn with Attached Beacon	-40...+122 °F (-40...+50 °C) ❶	-40...+158 °F (-40...+70 °C)

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

## Materials

Attribute	Description
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

## Performance Ratings

	Sound Output @ 1 m ❷	Volume Control	No. of Tones	Stages
Metal Horn	116 dB(A) Max	Adjustable -12 dB(A)	64	4
	Light Output (Xenon Strobe Beacon- 5J)		Light Output (Xenon Strobe Beacon- 10J)	
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	

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



## Operating Voltage

Cat. No.	Operating Voltage
855XM-HGMD30D	10...30V DC
855XM-HGMA10D	115V AC 60 Hz ±10%
855XM-HGMA20D	230V AC 50 Hz ±10%
855XM-CGMD24DA ❶	20...28V DC
855XM-CGMD24DB ❶	20...28V DC

Cat. No.	Operating Voltage
855XM-CGMA10DA ❶	115...125V AC 60 Hz
855XM-CGMA10DB ❶	115...125V AC 60 Hz
855XM-CGMA20DA ❶	215...250V AC 50 Hz
855XM-CGMA20DB ❶	215...250V AC 50 Hz

❶ To complete cat. no., add color code (4 = Red, 5 = Amber, or 7 = Clear).

## Current Consumption

Horns	Nominal Maximum	Inrush	Leakage Immunity
855XM-HGMD30D	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	89 mA @ 115V AC 60 Hz	710 mA, 8 ms	>3 mA
855XM-HGMA20D	52 mA @ 230V AC 60 Hz	350 mA, 7 ms	
Horns with Strobe	Combined	Inrush	Leakage Immunity
855XM-CGMD24DA ❷	513 mA @ 24V DC (5 J)	1932 mA, 10 ms	>3 mA
855XM-CGMD24DB ❷	876 mA @ 24V DC (10 J)	2074 mA, 11 ms	
855XM-CGMA10DA ❷	174 mA @ 115V AC (5 J)	975 mA, 3 ms	
855XM-CGMA10DB ❷	320 mA @ 115V AC (10 J)	1031 mA, 3 ms	
855XM-CGMA20DA ❷	63 mA @ 230V ACDC (5 J)	1607 mA, 3 ms	
855XM-CGMA20DB ❷	100 mA @ 230V AC (10 J)	1628 mA, 3 ms	

❷ To complete cat. no., add color code (4 = Red, 5 = Amber, or 7 = Clear).

## Flashing Frequency

Cat. No.	Frequency
855XM-CGMD24DA ❸	1 Hz
855XM-CGMD24DB ❸	
855XM-CGMA10DA ❸	
855XM-CGMA10DB ❸	
855XM-CGMA20DA ❸	
855XM-CGMA20DB ❸	

❸ To complete cat. no., add color code (4 = Red, 5 = Amber, or 7 = Clear).

## Cable Entry

Two M20x 1.5 mm threaded holes

## Terminal Blocks

0.5...2.5 mm<sup>2</sup> (20...14 AWG)

## Grounding Stud

M5

## ATEX/IECEX Certification

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

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

❷ Maximum surface temperature for dust applications is 194 °F (90 °C) for Cat. No. 855XM-CGMxxxDA\* and 230 °F (110 °C) for Cat. No. 855XM-CGMxxxDB\*.

## Class/Zone Ratings — US

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

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

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

## Class/Zone Ratings — Canada

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

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

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

## Class/Division Ratings — US and Canada

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

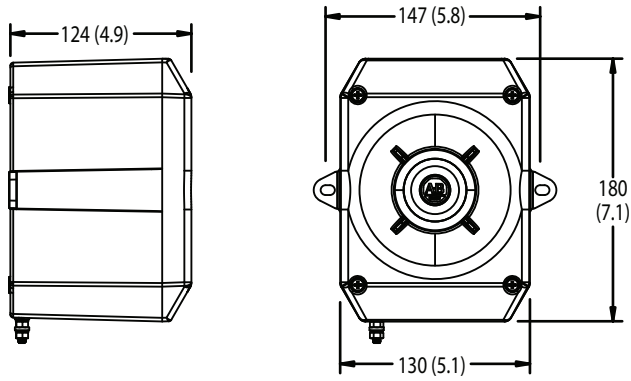
All horns (with and without strobe) comply with the following:

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

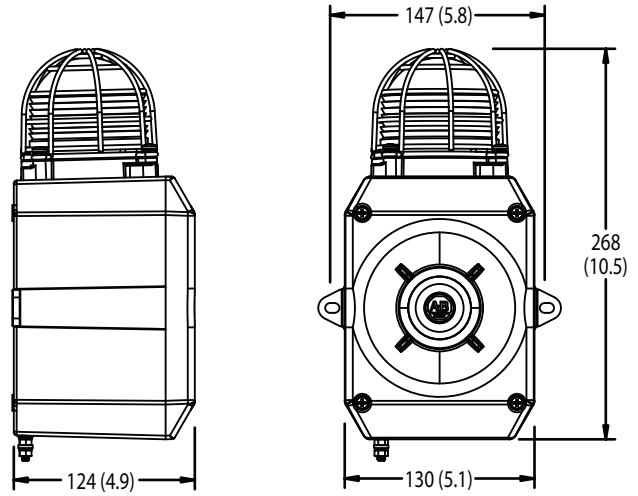
# Approximate Dimensions

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

**855XM Hazardous Location Metal Horn**



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



# 855HM High-Performance Electronic Metal Horns

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## Features

- Available as standalone electronic horn or with optional LED beacon
- Decibel range 119 dB(A) @ 1 meter with volume adjustment via potentiometer
- Up to three stages/circuits in each horn to reduce initial and installation costs when multi-status indication is required
- Up to 45 tone sets selectable via DIP switch
- Automatic tone synchronization when multiple horns are connected
- Lower current consumption when compared to electromechanical alternative
- Longer life and lower maintenance cost, due to non-moving parts and discrete components with excellent reliability
- Marine-grade aluminum housing with gray powder-coat finish
- UL Type 4/4X/13/3R, IP66
- Suitable for indoor/outdoor use



## 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
- cULus Listed (File No. E197159 and S6583, Guides UCST, UCST7)

# Product Selection

## Metal High-Performance Electronic 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

Sound Output	Supply Voltage	Cat. No.
119 dB max. at 1 m, 3 circuit, 45 selectable tones	10...30V DC	855HM-GMD30D
	115V AC, 50/60 Hz	855HM-GMA10D
	230V AC, 50/60 Hz	855HM-GMA20D

## 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 (A), 45 tone, 3-stage

f	
Illuminated Function	
Code	Description
L	Steady/flashing LED

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

Sound Output	Supply Voltage	Beacon Lens Color	Cat. No.
119 dB max. at 1 m, 3 circuit, 45 selectable tones	12...30V DC	Green	855HM-CGMD30DL3
		Red	855HM-CGMD30DL4
		Amber	855HM-CGMD30DL5
		Blue	855HM-CGMD30DL6
		Clear	855HM-CGMD30DL7
	115V AC, 50/60 Hz	Green	855HM-CGMA10DL3
		Red	855HM-CGMA10DL4
		Amber	855HM-CGMA10DL5
		Blue	855HM-CGMA10DL6
		Clear	855HM-CGMA10DL7
	230V AC 50/60 Hz	Green	855HM-CGMA20DL3
		Red	855HM-CGMA20DL4
		Amber	855HM-CGMA20DL5
		Blue	855HM-CGMA20DL6
		Clear	855HM-CGMA20DL7

## Accessories

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

# Tone Table

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



# Specifications

## Mechanical Ratings

Shock and Vibration	Listed below are reference guidelines for maximum shock and vibration standards for the 855HM horn.	
	Shock	Vibration
Metal Horn	40 G	3 G
Metal Horn with LED Beacon	30 G	3 G

## Environmental Ratings

Ingress Rating	Electronic Horn	UL Type 4/4X/13/3R, IP66	
	Horn with Beacon	UL Type 4/4X/13/3R, IP66	
		Operating	Storage
Temperature Ranges	Electronic Horn	-13...+131 °F (-25...+55 °C)	-40...+158 °F (-40...+70 °C)
	Horn with Beacon	-13...+131 °F (-25...+55 °C)	-40...+158 °F (-40...+70 °C)

## Materials

Attribute	Description
Housing	Marine-grade aluminum Al Si 12 Cu (phosphated and powder-coated)
Screws	Stainless steel
Beacon Lens	Clear polycarbonate over glass
Gasket (Cover to Base)	O-ring nitrile UL
Lens Cage	Stainless steel
Gasket (Screw Mounting Hole)	Fiber washer

## Performance Ratings

	Sound Output	Volume Control	No. of Tones	Stages
Metal Horn	119 dB max. @ 1 meter	Adjustable -12 dB	45	3
	LED Output			
Red LED Beacon	66 cd			
Amber LED Beacon	78 cd			
Green LED Beacon	176 cd			
Blue LED Beacon	45 cd			
Clear LED Beacon	120 cd			

## Operating Voltage

	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%)

## 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...30 VDC	436 mA max. @ 30V 357 mA @ 24V 220 mA @ 12V
115V AC	160 mA
230V AC	95 mA

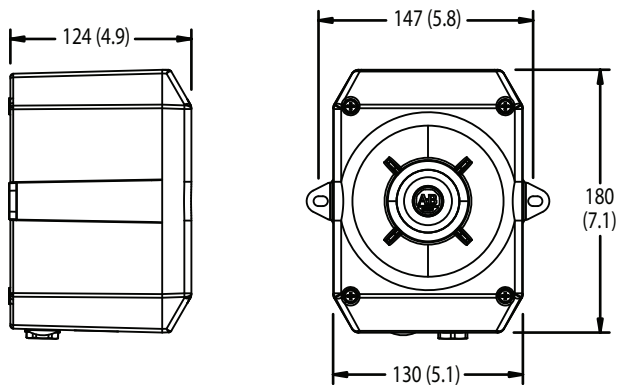
## Flashing Frequency

LED Beacon	Steady or 2 Hz
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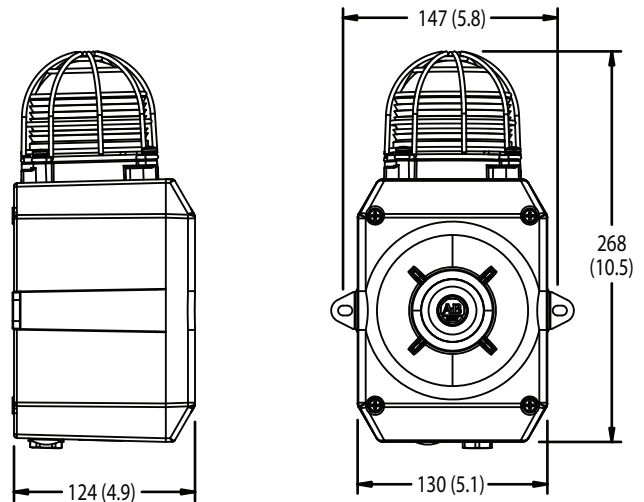
## Approximate Dimensions

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

855HM Metal Horn



855HM-C Metal Horn with LED Beacon



Notes:

# Rockwell Automation Support

Use the following resources to access support information.

<b>Technical Support Center</b>	Knowledgebase Articles, How-to Videos, FAQs, Chat, User Forums, and Product Notification Updates.	<a href="http://www.rockwellautomation.com/knowledgebase">www.rockwellautomation.com/knowledgebase</a>
<b>Local Technical Support Phone Numbers</b>	Locate the phone number for your country.	<a href="http://www.rockwellautomation.com/global/support/get-support-now.page">www.rockwellautomation.com/global/support/get-support-now.page</a>
<b>Direct Dial Codes</b>	Find the Direct Dial Code for your product. Use the code to route your call directly to a technical support engineer.	<a href="http://www.rockwellautomation.com/global/support/direct-dial.page">www.rockwellautomation.com/global/support/direct-dial.page</a>
<b>Literature Library</b>	Installation Instructions, Manuals, Brochures, and Technical Data.	<a href="http://www.rockwellautomation.com/literature">www.rockwellautomation.com/literature</a>
<b>Product Compatibility and Download Center (PCDC)</b>	Get help determining how products interact, check features and capabilities, and find associated firmware.	<a href="http://www.rockwellautomation.com/global/support/pcdc.page">www.rockwellautomation.com/global/support/pcdc.page</a>

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