

## Nexus Pulse 105 DC Sounder with LED Beacon

### Technical Specification

#### 1. Sounder

Supply Voltage Range	17-60V DC
Current - Sounder	8-39mA* (Typ. 30mA @ 24V, Tone 1)
Peak Sound Level:	100-113 dBA at 1m* (Typ. 105dBA @ 24V, Tone 1)
Number of Tones:	64 (dipswitch selectable for 1 <sup>st</sup> & 2 <sup>nd</sup> stage signals)
Frequency Range	340-2900 Hz*
Compliance	EN54-3:2001+A1:2002+A2:2006 (Tones 1,2,3,6,7,13); EN54-23:2010.
Volume Control	20dBA typical
Remote Tone Switching	Provision for 3 alarm stages (Negative voltage activation)
Current – LED Beacon	0.5Hz 20mA; 1Hz 39mA.

\*depends on selected tone and supply voltage

#### 2. LED Beacon

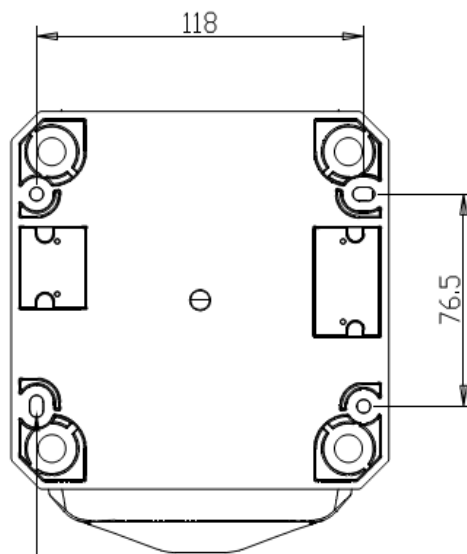
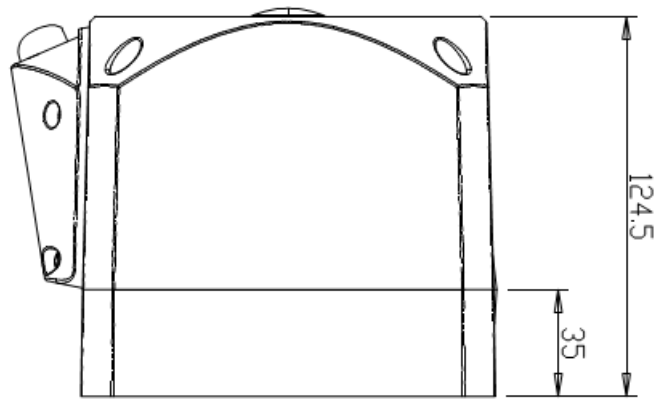
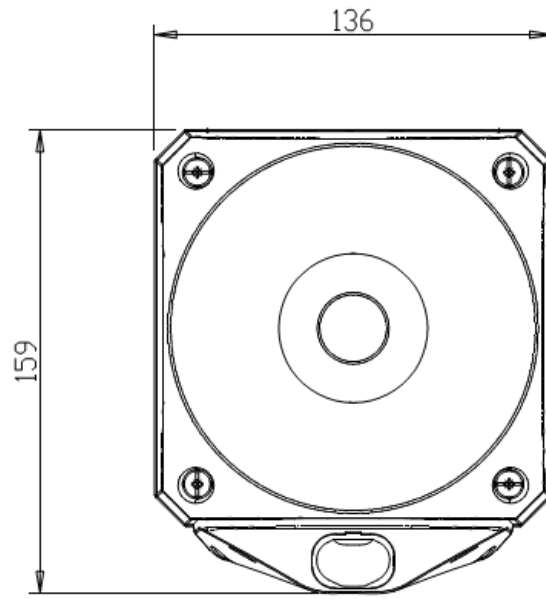
Current – LED Beacon	0.5Hz 20mA; 1Hz 40mA.
Coverage	White Flash W-3.1-11.3 (395.83m <sup>3</sup> ) Red Flash W-2.4-7.5 (135 m <sup>3</sup> )

#### 3. General

Operating Temperature:	- 25°C to +70°C
Casing:	High Impact Polycarbonate/ABS
Fasteners:	Quarter-turn
IP Rating:	IP66
Synchronisation	Automatic with Klaxon Nexus Pulse and Nexus




# Dimensions



Ø 4.5mm FIXING HOLES

RELEASE


## Approved Head types

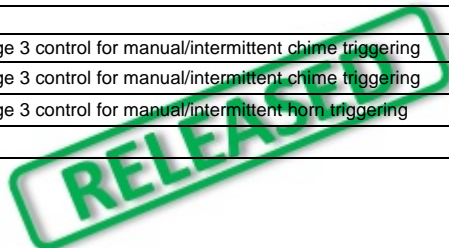
Fire alarm device: Sounder Beacon Type B For Indoor/ Outdoor Use		 0832 14	<b>EN54-23:2010</b> <b>Fire alarm devices – Visual alarm devices (VAD)</b> <b>Intended for use in and around buildings.</b>	
Head Type	Coverage Volume		CPR Number	Flash Colour
ENCA1000	W-3.1-11.3	0832-CPR-F0164	White	
ENDA1000	W-2.4-7.5	0832-CPR-F0165	Red	

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# Nexus

# Tone Table

TONE	TONE TYPE	TONE DESCRIPTION/ APPLICATION	DIP SWITCH	3 <sup>rd</sup> STAGE TONE	PEAK SOUND LEVEL (dBA @ 1m)	SOUNDER CURRENT (mA AVG)
			(S1/S2) 1_2_3_4_5_6			
1.	————	970Hz (BS5839-1:2002)	0-0-0-0-0-0	18	105	31
2.	□□□□	800Hz/970Hz @ 2Hz (BS5839-1:2002)	0-0-0-0-0-1	1	105	28
3.	∕∕∕∕	800Hz – 970Hz @ 1Hz (BS5839-1:2002)	0-0-0-0-1-0	1	104	25
4.	— — — —	970Hz 1s OFF/1s ON (Apollo Fire Systems Alert Tone, BS5839-1:2002)	0-0-0-0-1-1	1	105	17
5.	□□□□	970Hz, 0.5s/ 630Hz, 0.5s (Apollo Fire Systems Evacuate Tone, BS5839-1:2002)	0-0-0-1-0-0	1	105	27
6.	□□□□	554Hz, 0.1s/ 440Hz, 0.4s (France – AFNOR NF S 32 001 )	0-0-0-1-0-1	1	103	20
7.	∕∕∕∕	500 – 1200Hz, 3.5s/ 0.5s OFF (Netherlands – NEN 2575:2000 Dutch Slow Whoop)	0-0-0-1-1-0	1	108	19
8.	— — — —	420Hz 0.625s ON/0.625s OFF (Australia AS1670 Alert tone)	0-0-0-1-1-1	1	102	10
9.	∕∕∕∕	500 – 1200Hz, 0.5s/ 0.5s OFF x 3/ 1.5s OFF (Australia AS1670 Evacuation tone)	0-0-1-0-0-0	1	106	13
10.	□□□□	550Hz/440Hz @ 0.5Hz	0-0-1-0-0-1	19	104	21
11.	— — — —	970Hz, 0.5s ON/0.5s OFF x 3/ 1.5s OFF (ISO 8201 Low tone)	0-0-1-0-1-0	1	105	13
12.	— — — —	2850Hz, 0.5s ON/0.5s OFF x 3/ 1.5s OFF (ISO 8201 High tone)	0-0-1-0-1-1	1	107	16
13.	∕∕∕∕	1200Hz – 500Hz @ 1Hz (DIN 33 404)	0-0-1-1-0-0	1	109	22
14.	————	400Hz	0-0-1-1-0-1	18	101	16
15.	□□□□	550Hz, 0.7s/1000Hz, 0.33s	0-0-1-1-1-0	1	105	25
16.	∕∕∕∕	1500Hz – 2700Hz @ 3Hz (Vandal Alarm)	0-0-1-1-1-1	1	113	32
17.		Simulated Bell	0-1-0-0-0-0	1	107	18
18.	————	2130Hz	0-1-0-0-0-1	1	110	26
19.	————	660Hz	0-1-0-0-1-0	10	102	25
20.	— — — —	660Hz 1.8s ON/1.8s OFF	0-1-0-0-1-1	19	102	14
21.	— — — —	660Hz 0.15s ON/0.15s OFF	0-1-0-1-0-0	19	102	14
22.	□□□□	510Hz, 0.25s/ 610Hz, 0.25s	0-1-0-1-0-1	1	103	24
23.	□□□□	800/1000Hz 0.5s each (1Hz)	0-1-0-1-1-0	1	106	25
24.	∕∕∕∕	250Hz – 1200Hz @ 12Hz	0-1-0-1-1-1	1	101	23
25.	∕∕∕∕	500Hz – 1200Hz @ 0.33Hz.	0-1-1-0-0-0	1	108	21
26.	∕∕∕∕	2400Hz – 2900Hz @ 9Hz	0-1-1-0-0-1	1	113	39
27.	∕∕∕∕	2400Hz – 2900Hz @ 3Hz	0-1-1-0-1-0	1	111	39
28.	∕∕∕∕	800Hz – 970Hz @ 100Hz	0-1-1-0-1-1	1	104	23
29.	∕∕∕∕	800Hz – 970Hz @ 9Hz	0-1-1-1-0-0	1	104	27
30.	∕∕∕∕	800Hz – 970Hz @ 3Hz	0-1-1-1-0-1	1	105	28
31.	— —	800Hz, 0.25s ON/1s OFF	0-1-1-1-1-0	1	103	8
32.	∕∕∕∕	500Hz – 1200Hz, 3.75s/0.25s OFF (AS2220)	0-1-1-1-1-1	1	108	20
33.	————	340Hz	1-0-0-0-0-0	1	101	17
34.	————	1000Hz	1-0-0-0-0-1	18	106	25
35.	∕∕∕∕	1400Hz – 1600Hz, 1s/1600Hz – 1400Hz, 0.5s (NF 48-265)	1-0-0-0-1-0	1	104	34
36.	— — — —	660Hz 6.5s ON/13s OFF	1-0-0-0-1-1	19	102	9
37.	□□□□	1000Hz/2000Hz, 1s each	1-0-0-1-0-0	1	108	25
38.	— — — —	720Hz, 0.7s ON/0.3s OFF	1-0-0-1-0-1	1	104	16
39.	— — — —	970Hz, 0.25s ON/OFF	1-0-0-1-1-0	1	105	17
40.	— — — —	2800Hz, 1s ON/OFF	1-0-0-1-1-1	1	106	20
41.	— — — —	2800Hz 0.25s ON/OFF	1-0-1-0-0-0	1	106	19
42.	□□□□	2400/2900 @ 2Hz	1-0-1-0-0-1	1	113	38
43.		Chime, 554Hz/440Hz Single shot 'ding dong'	1-0-1-0-1-0	1	100	15
44.		Chime, 554Hz/440Hz Repeating 'ding dong'	1-0-1-0-1-1	1	102	15
45.		Chime, 970Hz/800Hz Single shot 'ding dong'	1-0-1-1-0-0	1	101	36
46.		Chime, 970Hz/800Hz Repeating 'ding dong'	1-0-1-1-0-1	1	100	36
47.		Hooter, Repeating	1-0-1-1-1-0	1	102	13
48.	□□□□	Gentle alarm - Tone 2, rises slowly to full volume over 30s	1-0-1-1-1-1	1	105	28
49.	□□□□	Time-Out Alarm – As Tone 2, cuts off after 10 mins	1-1-0-0-0-0	1	105	28
50.	□□□□	Time-Out Alarm – As Tone 2, cuts off after 2 mins	1-1-0-0-0-1	1	105	28
51.	— — — —	750Hz 0.33s ON/0.51s OFF	1-1-0-0-1-0	1	103	8
52.	— — — —	750Hz 0.51s ON/0.33s OFF	1-1-0-0-1-1	1	103	15
53.	— — — —	550Hz, 0.33s/1000Hz, 0.7s	1-1-0-1-0-0	1	106	25
54.	∕∕∕∕	600Hz – 900Hz/ 0.9s	1-1-0-1-0-1	1	104	31
55.	∕∕∕∕	660Hz – 680Hz/ 0.9s	1-1-0-1-1-0	1	101	28
56.	∕∕∕∕	670Hz – 725Hz/ 0.9s	1-1-0-1-1-1	1	104	25
57.	∕∕∕∕	920Hz – 750Hz/ 0.9s	1-1-1-0-0-0	1	104	30
58.	∕∕∕∕	700Hz - 900Hz, 0.3s/0.6s OFF	1-1-1-0-0-1	1	104	11
59.	∕∕∕∕	900Hz - 760Hz, 0.6s/0.3s OFF	1-1-1-0-1-0	1	105	19
60.	————	750Hz	1-1-1-0-1-1	18	103	22
61.		Power Only – Use with Stage 3 control for manual/intermittent chime triggering	1-1-1-1-0-0	43		
62.		Power Only – Use with Stage 3 control for manual/intermittent chime triggering	1-1-1-1-0-1	43		
63.		Power Only – Use with Stage 3 control for manual/intermittent horn triggering	1-1-1-1-1-0	47		
64.		Reserved for future use	1-1-1-1-1-1			



# Absolute Minimum Sound Pressure Level

dBA at 1m , measured in accordance with EN54-3 Annex A

NOTE: Sound output at 24V and 48V DC matches the output at 60V

<b>Tone 1: 970Hz Continuous</b>				
Angle	Horizontal		Vertical	
	60V	17V	60V	17V
15°	90.3	85.5	87.7	83.1
45°	98.2	93.6	98.9	94.2
75°	101.1	96.5	100.4	96.1
105°	100.6	96.1	100.8	96.1
135°	98.7	93.8	98.6	93.8
165°	88.7	84	87.4	82.8

<b>Tone 2: 800/970Hz Alternating at 2Hz</b>				
Angle	Horizontal		Vertical	
	60V	17V	60V	17V
15°	90.5	85.7	90.8	86
45°	98.3	93.6	98.8	94
75°	102.7	97.9	102.6	97.9
105°	102	97.3	101.8	97.1
135°	98.6	93.8	98.6	93.9
165°	91	85.8	90.9	85.8

<b>Tone 3: 800 - 970Hz Swept at 1Hz</b>				
Angle	Horizontal		Vertical	
	60V	17V	60V	17V
15°	90.7	85.1	91	85.3
45°	98.7	93.7	98.5	93.6
75°	101.1	96	100.8	96
105°	100.8	95.7	100.5	95.6
135°	98.1	92.9	97.5	92.5
165°	90.6	85.3	90.1	85.1

<b>Tone 6: 554Hz for 0.1s/440Hz for 0.4s (France AFNOR NF S 32 001)</b>				
Angle	Horizontal		Vertical	
	60V	17V	60V	17V
15°	90.2	85.8	90	85.6
45°	97.3	93.1	97.2	92.9
75°	100.4	96.2	100.2	96
105°	99.7	95.5	100.1	95.8
135°	96.6	92.4	96.6	92.3
165°	89.4	85.2	90.1	85.6

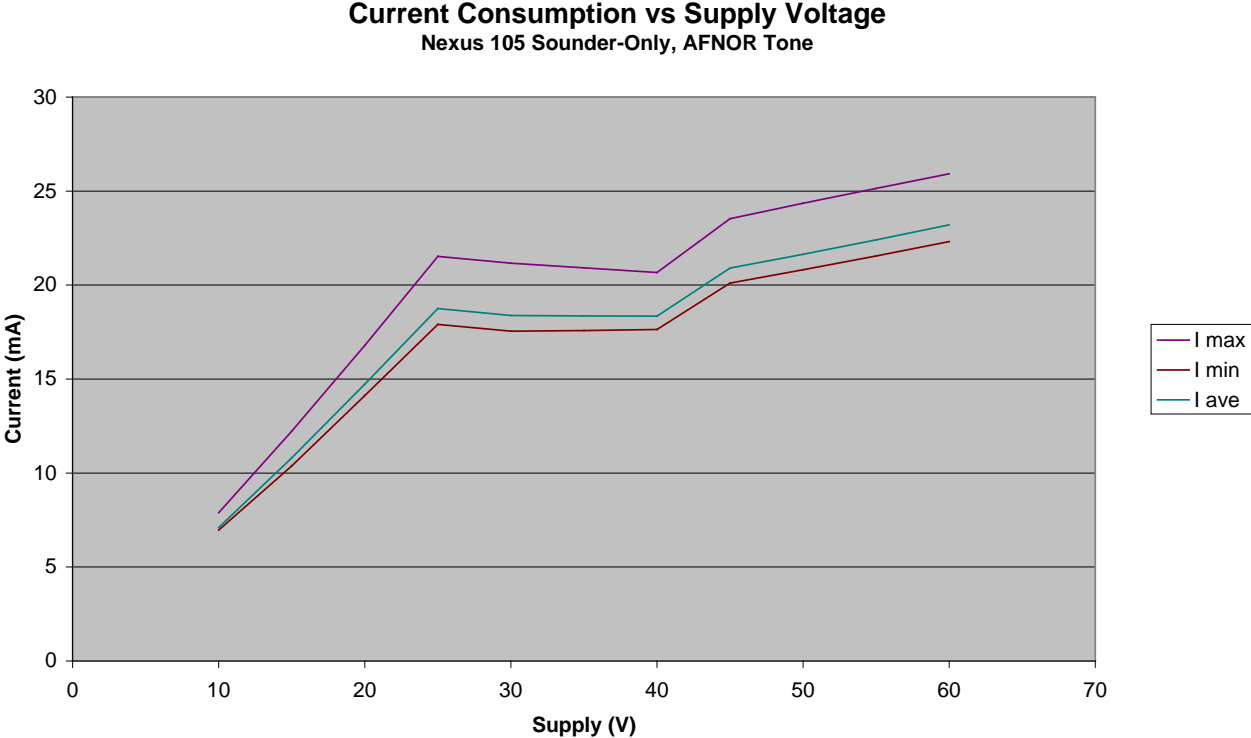


<b>Tone 7: 500-1200Hz swept over 3.5s with 0.5s gap (Netherlands NEN 2575:2000)</b>				
	Horizontal		Vertical	
Angle	60V	17V	60V	17V
15°	91.3	86.2	90.2	85.1
45°	98.4	93.5	98.3	93.4
75°	104.2	99.3	103.7	98.9
105°	103.5	98.6	103.7	98.7
135°	97.8	92.7	98.2	92.9
165°	90.5	85.3	90.3	84.9

<b>Tone 13: 1200-500Hz swept at 1Hz (Germany DIN 33 404)</b>				
	Horizontal		Vertical	
Angle	60V	17V	60V	17V
15°	90.4	85.3	88.8	84.1
45°	96.9	92.1	97.1	92.3
75°	101.4	96.4	101.4	96.2
105°	100.7	95.8	100.9	96
135°	96.6	91.8	96.6	91.7
165°	89.4	84.9	89.8	85

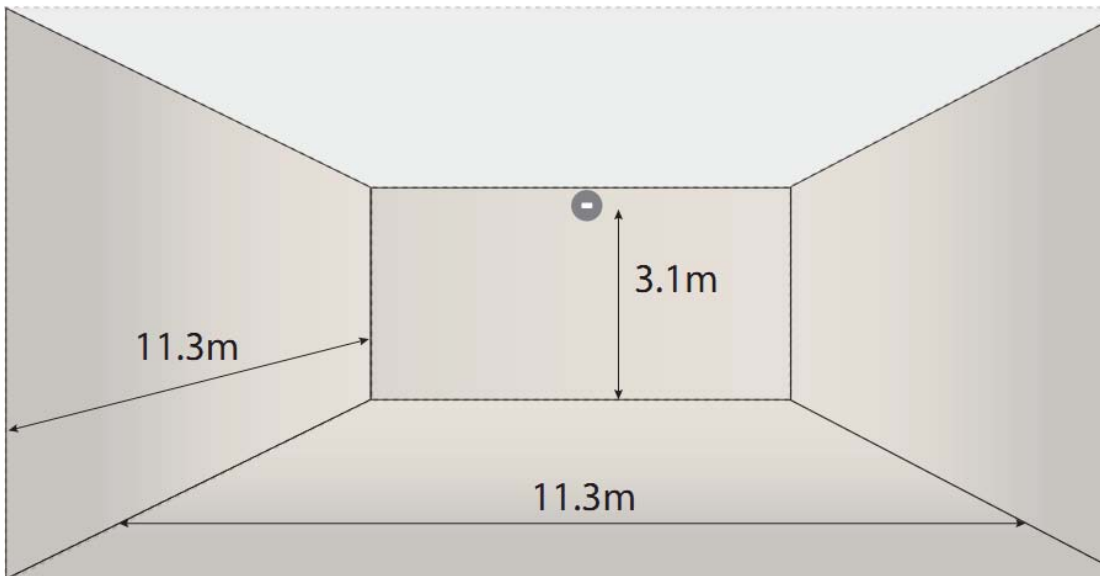
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# Current vs Supply Voltage (AFNOR Tone)



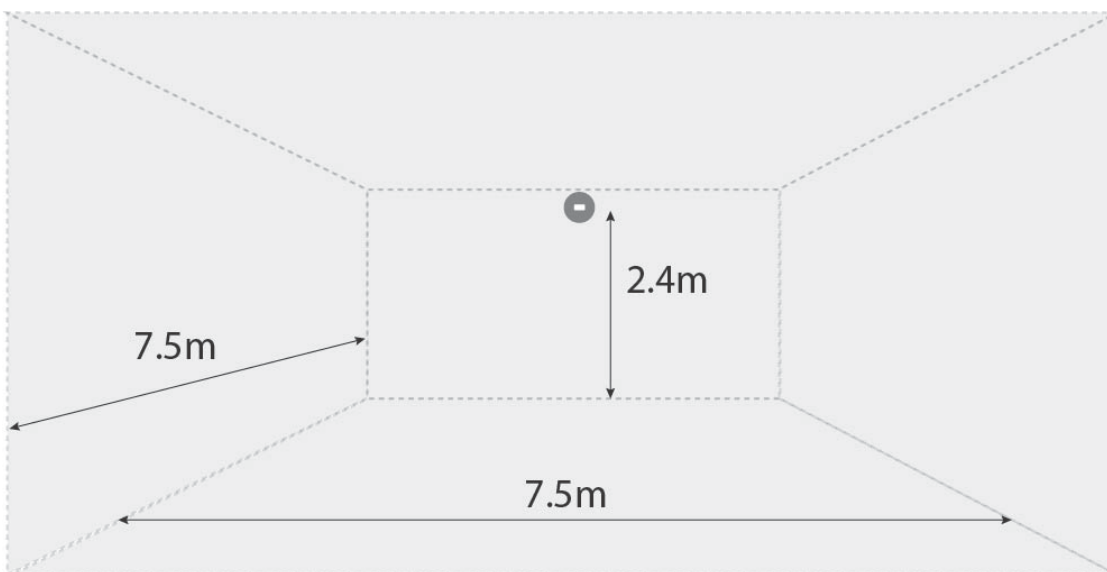
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**Maximum Coverage EN54-23  
White Light Beacon**



**EN54-23 Coverage W-3.1-11.3**

**Red Light Beacon**



**EN54-23 Coverage W-2.4-7.5**

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