

Nexus

Nexus 105 DC Sounder

Nexus 105 DC Sounder with 5J Xenon Beacon

Nexus 105 DC Sounder with LED Beacon

Technical Specification

1. Sounder

Supply Voltage Range	10-60V DC
Current	8-40mA* (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 st & 2 nd stage signals)
Frequency Range	340-2900 Hz*
Compliance	EN54-3:2001 (Tones 1,2,3,6,7,13 & > 17V DC Only)
Volume Control	20dBA typical
Remote Tone Switching	Provision for 3 alarm stages (Negative voltage activation)

*depends on selected tone and supply voltage

2. Xenon Beacon (Where fitted)

Supply Voltage Range	10-60V DC
Current – 5J Xenon strobe	350mA Peak @ 24V DC 700mA Peak @ 12V DC
Flash Energy	5 Joules
Flash Type	Single or double (dipswitch selectable)
Flash Rate	60 or 30 flashes per minute (dipswitch selectable)
Flash Colours	Red, amber, green, blue, white

3. LED Beacon (Where fitted)

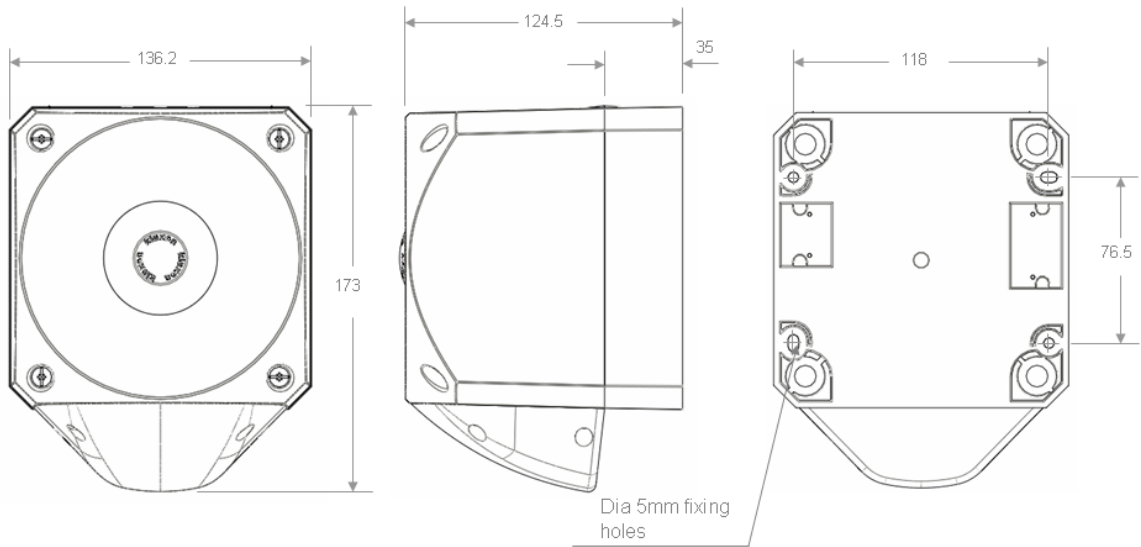
Supply Voltage Range	10-60V DC
Current – LED strobe	18mA (Flashing) or 65mA (Static)*
Flash Types	Single flash, double flash or static lamp (dipswitch selectable)
Flash Colours	Red, amber, green, blue, white

4. General

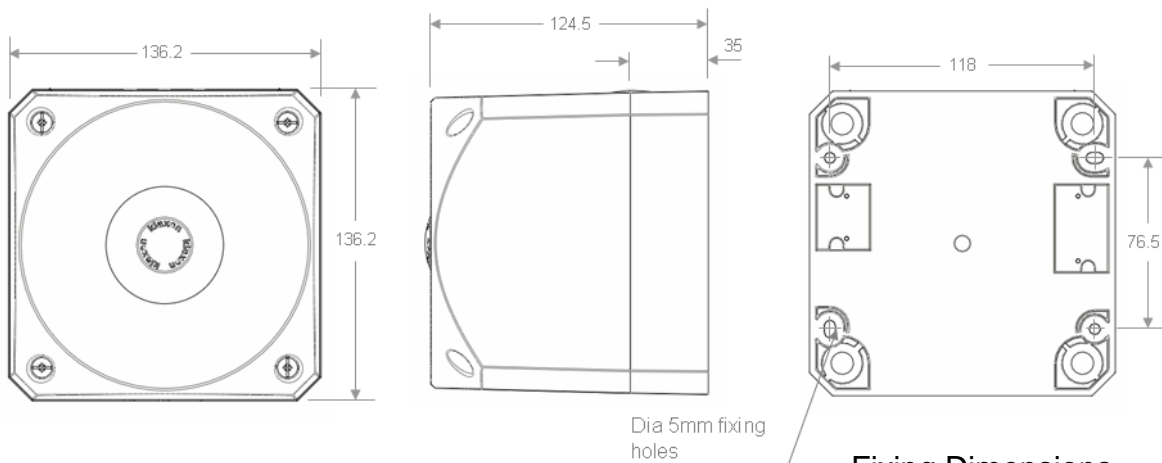
Operating Temperature:	- 25°C to +70°C
Casing:	High Impact Polycarbonate/ABS
Fasteners:	Quarter-turn
IP Rating:	IP66
Synchronisation	Automatic with Klaxon Nexus and Sonos Sounders

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Dimensions



Fixing Dimensions



Fixing Dimensions



Models

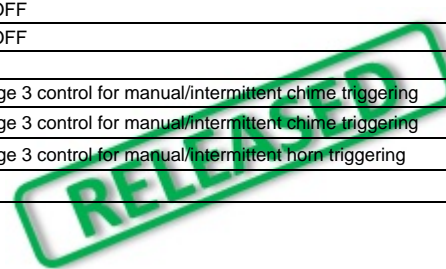
Part No.	Former Part No.	Product Type	Lens Colour
PNS-0001	18-980542	Sounder Only	N/A
PNC-0001	18-980543	Sounder with 5J Xenon Beacon	Red
PNC-0002	18-980544	Sounder with 5J Xenon Beacon	Amber
PNC-0041	18-980653	Sounder with 5J Xenon Beacon	Green
PNC-0043	18-980655	Sounder with 5J Xenon Beacon	Blue
PNC-0020	18-980588	Sounder with 5J Xenon Beacon	White
PNC-0024	18-980620	Sounder with LED Beacon	Red
PNC-0028	18-980621	Sounder with LED Beacon	Amber
PNC-0046	18-980658	Sounder with LED Beacon	Green
PNC-0047	18-980659	Sounder with LED Beacon	Blue
PNC-0045	18-980657	Sounder with LED Beacon	White

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Tone Table

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



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

Tone 1: 970Hz Continuous				
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

Tone 2: 800/970Hz Alternating at 2Hz				
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

Tone 3: 800 - 970Hz Swept at 1Hz				
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

Tone 6: 554Hz for 0.1s/440Hz for 0.4s (France AFNOR NF S 32 001)				
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



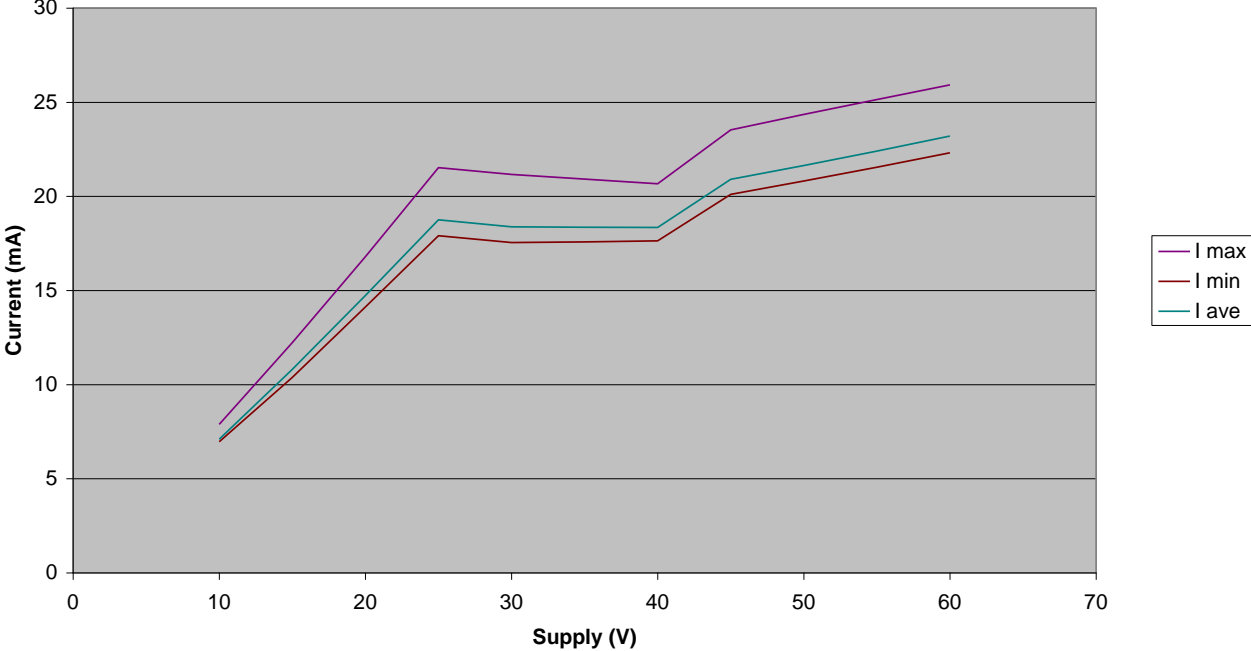
Tone 7: 500-1200Hz swept over 3.5s with 0.5s gap (Netherlands NEN 2575:2000)				
Angle	Horizontal		Vertical	
	60V	17V	60V	17V
15°	91.3	86.2	90.2	85.1
45°	98.4	93.5	98.3	93.4
75°	104.2	99.3	103.7	98.9
105°	103.5	98.6	103.7	98.7
135°	97.8	92.7	98.2	92.9
165°	90.5	85.3	90.3	84.9

Tone 13: 1200-500Hz swept at 1Hz (Germany DIN 33 404)				
Angle	Horizontal		Vertical	
	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)

Current Consumption vs Supply Voltage
Nexus 105 Sounder-Only, AFNOR Tone



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