

# Nexus

## Nexus 120 DC Sounder

## Nexus 120 DC Sounder with 5J Xenon Beacon

## Nexus 120 DC Sounder with LED Beacon

### Technical Specification

#### 1. Sounder

Supply Voltage Range	10-60V DC
Current	0.12 – 0.55A* (Typ. 0.5A @ 24V, Tone 2)
Peak Sound Level:	110-120 dBA at 1m* (Typ. 120dBA @ 24V, Tone 2)
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 (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)

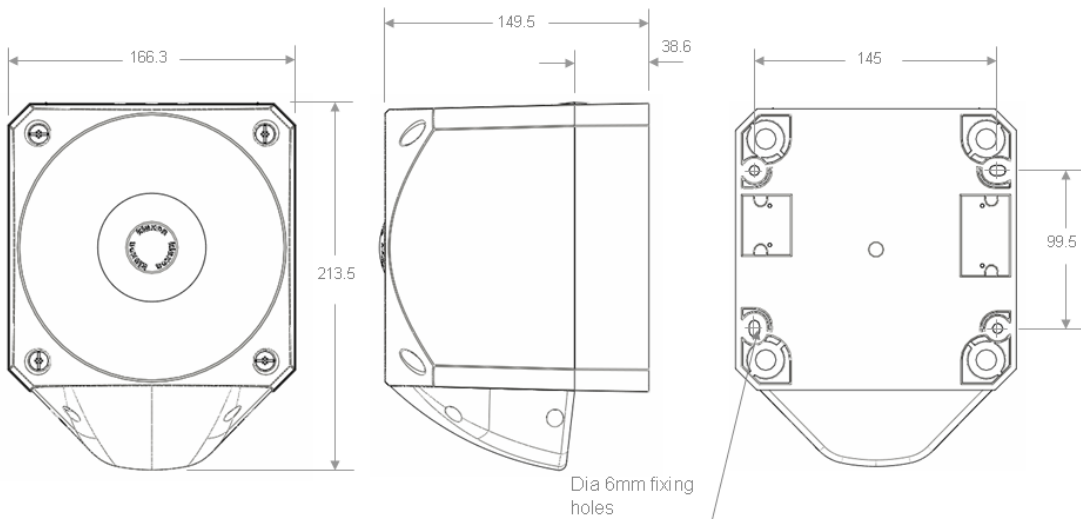
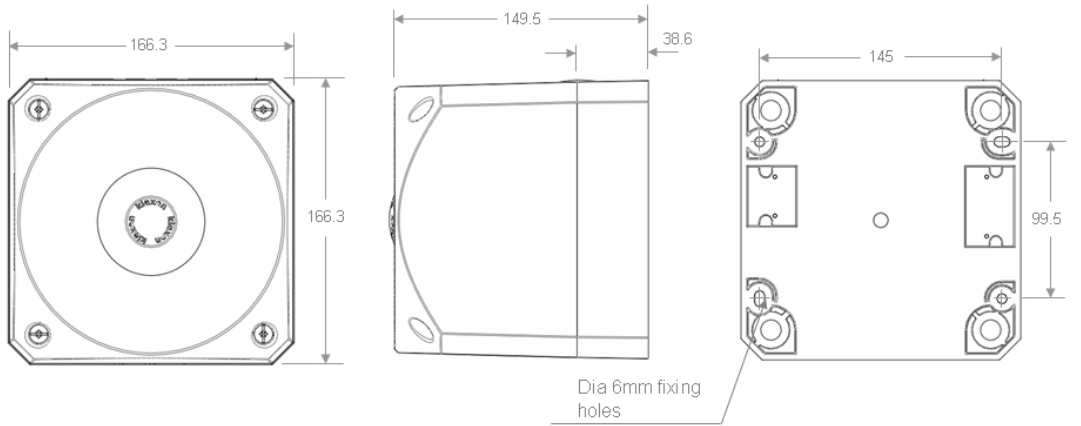
Supply Voltage Range	10-60V DC
Current – LED strobe	18mA (Flashing) or 65mA (Static)*
Flash Types	Single flash, double flash or static lamp (dipswitch selectable)
Flash Colours	Red, amber, green, blue, white

#### 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



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## Models

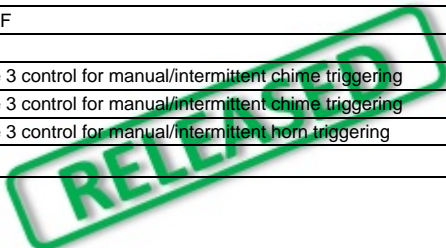
Part No.	Former Part No.	Product Type	Lens Colour
PNS-0005	18-980545	Sounder Only	N/A
PNC-0003	18-980546	Sounder with 5J Xenon Beacon	Red
PNC-0004	18-980547	Sounder with 5J Xenon Beacon	Amber
PNC-0055	18-980667	Sounder with 5J Xenon Beacon	Green
PNC-0057	18-980669	Sounder with 5J Xenon Beacon	Blue
PNC-0022	18-980591	Sounder with 5J Xenon Beacon	White
PNC-0035	18-980635	Sounder with LED Beacon	Red
PNC-0039	18-980636	Sounder with LED Beacon	Amber
PNC-0060	18-980672	Sounder with LED Beacon	Green
PNC-0061	18-980673	Sounder with LED Beacon	Blue
PNC-0059	18-980671	Sounder with LED Beacon	White

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# Nexus

# Tone Table

TONE	TONE TYPE	TONE DESCRIPTION/ APPLICATION	DIP SWITCH (S1/S2)						3 <sup>rd</sup> STAGE TONE	PEAK SOUND LEVEL (dBA @ 1m)	SOUNDER CURRENT (A AVG)
			1	2	3	4	5	6			
1.	————	970Hz (BS5839-1:2002)	0	0	0	0	0	0	18	118	0.55
2.	□□□□	800Hz/970Hz @ 2Hz (BS5839-1:2002)	0	0	0	0	0	I	1	120	0.50
3.	∩∩∩∩	800Hz – 970Hz @ 1Hz (BS5839-1:2002)	0	0	0	0	I	0	1	120	0.50
4.	-----	970Hz 1s OFF/1s ON (Apollo Fire Systems Alert Tone, BS5839-1:2002)	0	0	0	0	I	I	1	118	0.27
5.	□□□□	970Hz, 0.5s/ 630Hz, 0.5s (Apollo Fire Systems Evacuate Tone, BS5839-1:2002)	0	0	0	I	0	0	1	118	0.51
6.	□□□□	554Hz, 0.1s/ 440Hz, 0.4s (France – AFNOR NF S 32 001 )	0	0	0	I	0	I	1	118	0.33
7.	∩∩∩∩	500 – 1200Hz, 3.5s/ 0.5s OFF (Netherlands – NEN 2575:2000 Dutch Slow Whoop)	0	0	0	I	I	0	1	120	0.45
8.	-----	420Hz 0.625s ON/0.625s OFF (Australia AS1670 Alert tone)	0	0	0	I	I	I	1	115	0.17
9.	∩∩∩∩	500 – 1200Hz, 0.5s/ 0.5s OFF x 3/1.5s OFF (Australia AS1670 Evacuation tone)	0	0	I	0	0	0	1	119	0.22
10.	□□□□	550Hz/440Hz @ 0.5Hz	0	0	I	0	0	I	19	118	0.34
11.	--- ---	970Hz, 0.5s ON/0.5s OFF x 3/ 1.5s OFF (ISO 8201 Low tone)	0	0	I	0	I	0	1	118	0.21
12.	--- ---	2850Hz, 0.5s ON/0.5s OFF x 3/1.5s OFF (ISO 8201 High tone)	0	0	I	0	I	I	1	110	0.19
13.	∩∩∩∩	1200Hz – 500Hz @ 1Hz (DIN 33 404)	0	0	I	I	0	0	1	119	0.50
14.	————	400Hz	0	0	I	I	0	I	18	114	0.36
15.	□□□□	550Hz, 0.7s/1000Hz, 0.33s	0	0	I	I	I	0	1	120	0.39
16.	∩∩∩∩	1500Hz – 2700Hz @ 3Hz (Vandal Alarm)	0	0	I	I	I	I	1	118	0.47
17.	🔔	Simulated Bell	0	I	0	0	0	0	1	115	0.32
18.	————	840Hz	0	I	0	0	0	I	1	119	0.51
19.	————	660Hz	0	I	0	0	I	0	10	114	0.51
20.	-----	660Hz 1.8s ON/1.8s OFF	0	I	0	0	I	I	19	114	0.26
21.	-----	660Hz 0.15s ON/0.15s OFF	0	I	0	I	0	0	19	113	0.27
22.	□□□□	510Hz, 0.25s/ 610Hz, 0.25s	0	I	0	I	0	I	1	115	0.44
23.	□□□□	800/1000Hz 0.5s each (1Hz)	0	I	0	I	I	0	1	120	0.51
24.	∩∩∩∩	250Hz – 1200Hz @ 12Hz	0	I	0	I	I	I	1	114	0.52
25.	∩∩∩∩	500Hz – 1200Hz @ 0.33Hz.	0	I	I	0	0	0	1	119	0.51
26.	∩∩∩∩	2400Hz – 2900Hz @ 9Hz	0	I	I	0	0	I	1	113	0.45
27.	∩∩∩∩	2400Hz – 2900Hz @ 3Hz	0	I	I	0	I	0	1	113	0.45
28.	∩∩∩∩	800Hz – 970Hz @ 100Hz	0	I	I	0	I	I	1	120	0.50
29.	∩∩∩∩	800Hz – 970Hz @ 9Hz	0	I	I	I	0	0	1	120	0.50
30.	∩∩∩∩	800Hz – 970Hz @ 3Hz	0	I	I	I	0	I	1	120	0.50
31.	- -	800Hz, 0.25s ON/1s OFF	0	I	I	I	I	0	1	119	0.12
32.	∩∩∩∩	500Hz – 1200Hz, 3.75s/0.25s OFF (AS2220)	0	I	I	I	I	I	1	119	0.48
33.	————	340Hz	I	0	0	0	0	0	1	114	0.33
34.	————	1000Hz	I	0	0	0	0	I	18	116	0.51
35.	∩∩∩∩	1400Hz – 1600Hz, 1s/1600Hz – 1400Hz, 0.5s (NF 48-265)	I	0	0	0	I	0	1	120	0.50
36.	-----	660Hz 6.5s ON/13s OFF	I	0	0	0	I	I	19	114	0.18
37.	□□□□	1000Hz/2000Hz, 1s each	I	0	0	I	0	0	1	117	0.49
38.	-----	720Hz, 0.7s ON/0.3s OFF	I	0	0	I	0	I	1	119	0.37
39.	-----	970Hz, 0.25s ON/OFF	I	0	0	I	I	0	1	118	0.27
40.	-----	2800Hz, 1s ON/OFF	I	0	0	I	I	I	1	110	0.24
41.	-----	2800Hz 0.25s ON/OFF	I	0	I	0	0	0	1	110	0.23
42.	□□□□	2400/2900 @ 2Hz	I	0	I	0	0	I	1	113	0.44
43.		Chime, 554Hz/440Hz Single shot 'ding dong'	I	0	I	0	I	0	1	115	0.28
44.		Chime, 554Hz/440Hz Repeating 'ding dong'	I	0	I	0	I	I	1	118	0.28
45.		Chime, 970Hz/800Hz Single shot 'ding dong'	I	0	I	I	0	0	1	116	0.28
46.		Chime, 970Hz/800Hz Repeating 'ding dong'	I	0	I	I	0	I	1	116	0.28
47.		Hooter, Repeating	I	0	I	I	I	0	1	114	0.22
48.	□□□□	Gentle alarm - Tone 2, rises slowly to full volume over 30s	I	0	I	I	I	I	1	120	0.50
49.	□□□□	Time-Out Alarm – As Tone 2, cuts off after 10 mins	I	I	0	0	0	0	1	120	0.50
50.	□□□□	Time-Out Alarm – As Tone 2, cuts off after 2 mins	I	I	0	0	0	I	1	120	0.50
51.	-----	750Hz 0.33s ON/0.51s OFF	I	I	0	0	I	0	1	119	0.15
52.	-----	750Hz 0.51s ON/0.33s OFF	I	I	0	0	I	I	1	118	0.32
53.	-----	550Hz, 0.33s/1000Hz, 0.7s	I	I	0	I	0	0	1	117	0.46
54.	∩∩∩∩	600Hz – 900Hz/ 0.9s	I	I	0	I	0	I	1	119	0.50
55.	∩∩∩∩	660Hz – 680Hz/ 0.9s	I	I	0	I	I	0	1	116	0.49
56.	∩∩∩∩	670Hz – 725Hz/ 0.9s	I	I	0	I	I	I	1	119	0.50
57.	∩∩∩∩	920Hz – 750Hz/ 0.9s	I	I	I	0	0	0	1	120	0.51
58.	∩∩∩∩	700Hz - 900Hz, 0.3s/0.6s OFF	I	I	I	0	0	I	1	119	0.19
59.	∩∩∩∩	900Hz - 760Hz, 0.6s/0.3s OFF	I	I	I	0	I	0	1	120	0.35
60.	————	750Hz	I	I	I	0	I	I	18	118	0.49
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

<b>Tone 1: 970Hz Continuous</b>				
Angle	Horizontal		Vertical	
	60V	17V	60V	17V
15°	102.5	97.8	106.1	102.8
45°	108.1	103.3	110.4	107.3
75°	111.8	108	113.4	110.4
105°	110.9	107.2	113.2	110.2
135°	105.9	102.1	109.7	106.6
165°	100.3	96.3	105.2	102.1

<b>Tone 2: 800/970Hz Alternating at 2Hz</b>				
Angle	Horizontal		Vertical	
	60V	17V	60V	17V
15°	105	101.7	105.5	102.5
45°	108.1	104.7	110	107
75°	112.9	109.6	113.4	110.4
105°	111.9	108.7	112.9	109.8
135°	108.7	105.7	109.9	106.9
165°	104.7	101.5	105.5	102.5

<b>Tone 3: 800 - 970Hz Swept at 1Hz</b>				
Angle	Horizontal		Vertical	
	60V	17V	60V	17V
15°	106.6	103.4	106.9	103.9
45°	110.7	107.5	111.2	108.2
75°	114.5	111.5	114.6	111.6
105°	113.9	110.8	114.4	111.3
135°	108.6	105.4	109.8	106.7
165°	106.3	102.8	106.4	103.4

<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°	106.3	103	107	103.8
45°	112.1	108.8	111.7	108.4
75°	112.4	109.1	112.6	109.4
105°	112.5	109.1	112.7	109.3
135°	111.7	108.4	111.4	108
165°	106	102.6	106.3	103.1

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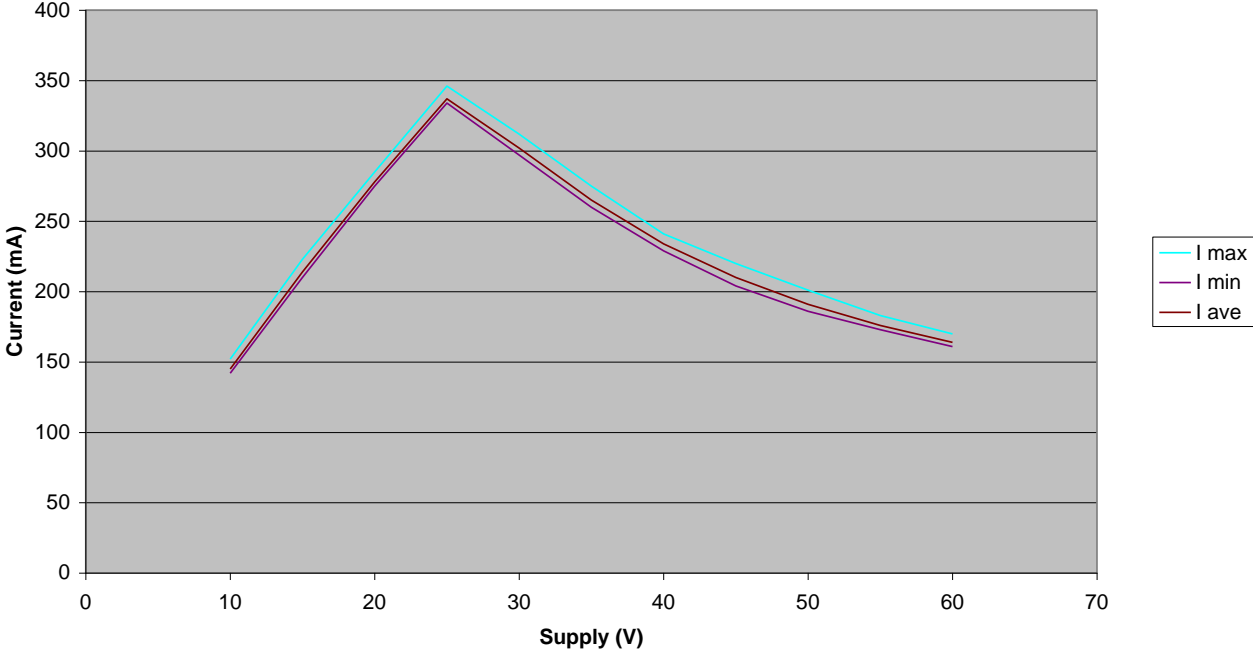
<b>Tone 7: 500-1200Hz swept over 3.5s with 0.5s gap (Netherlands NEN 2575:2000)</b>				
	Horizontal		Vertical	
Angle	60V	17V	60V	17V
15°	106.4	103.3	106.8	103.7
45°	113.6	110.6	113.1	110
75°	114.4	111.3	114.5	111.4
105°	113.8	110.7	114.1	110.9
135°	113.5	110.5	112.8	109.9
165°	106	103	106.3	103.2

<b>Tone 13: 1200-500Hz swept at 1Hz (Germany DIN 33 404)</b>				
	Horizontal		Vertical	
Angle	60V	17V	60V	17V
15°	105.9	102.9	106.1	103
45°	112.8	109.7	112.3	109.2
75°	113.5	110.4	113.4	110.3
105°	112.6	109.5	112.9	109.9
135°	112.4	109.4	111.8	108.8
165°	105.6	102.5	105.7	102.6

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# Current vs Supply Voltage (AFNOR Tone)

Current Consumption vs Supply Voltage  
Nexus 120 Sounder-Only, AFNOR Tone



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