

# Product Data Sheet: VTG 24 Volt 32 Tone Spatial Sounder - EN 54 Approved

## Description

This sounder has been fully approved to EN 54-Part 3 by the LPCB and VdS on tones 1, 8, 11, 25 and 27.

All the standard features are retained including the facility to select from three volume settings via the DIL switch. This allows individual sounders to be retro-converted to high output devices where additional sound output is required.

Tones are selected via the DIL switch on the PCB. By using 3-wires, a second stage alarm may be switched so that the second tone will over-ride the selected tone.

Standard with all VTG products is a universal locking system. Utilising an industry standard grub screw, each VTG product may be locked in place, making VTG fully compliant with the latest requirements of British and European standards.

Quick fit mounting is achieved by the bayonet fixing arrangement on each base and is standard on both base variants. The deep mounting base features a throw-away cover plate for surface mount wiring. This is kept in place when wiring directly through into the rear of the product.

## Tone List

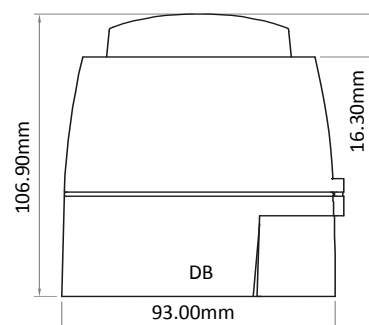
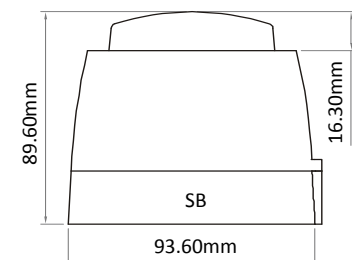
No.	Tone	Description	Switch	Second Stage
1	LF Sweep (Cranford sweep)	800-1000 Hz @ 0.5 s	11111	800 Hz cont
2	Alternative warble	800/960 Hz @ 2 Hz	11110	800 Hz cont
3	Warble Tone	800/1000 Hz @ 0.5 s	11101	800 Hz cont
4	Alternative warble	500/600 Hz @ 2 Hz	11100	500 Hz cont
5	HF Back up Interrupted tone	2800 Hz @ 1.0 s on/off	11011	2800 Hz cont
6	LF Back up Alarm	800 Hz @ 150 ms on/off	11010	800 Hz cont
7	HF Back up Interrupted tone - fast	2800 Hz @ 150 ms on/off	11001	800 Hz cont
8	LF Continuous tone BS 5839	800 Hz cont	11000	Same tone
9	Sweep tone (1 Hz)	800/900 Hz @ 1Hz	10111	800 Hz cont
10	Australian slow whoop	Intermittent 970 Hz 0.625 ms on/0.625 ms off	10110	500-1200 Hz - 3.75 s on 0.25 s off
11	Dutch sweep tone	970 Hz cont	10101	500-1200 Hz - 3.5 s on 0.5 s off
12	Analogue sweep tone	500/600 Hz @ 2 Hz	10100	500 Hz cont
13	Sweep tone (3 Hz)	800/970 Hz @ 3 Hz	10011	800 Hz cont
14	Alternate HF slow sweep	2350/2900 Hz @ 3 Hz	10010	2400 Hz cont
15	Fast HF sweep	2400-2800 Hz @ 7 Hz	10001	2400 Hz cont
16	US Temporal Pattern LF	950 Hz for 0.5 s on 0.5 s off x 3 then 1.5 s then repeat	10000	800 Hz cont
17	Interrupted tone	Interrupted tone 800 Hz @ 0.5 s on/off	01111	800 Hz cont
18	ISO 8201 LF BS 5839 Pt 1 1988	Intermittent 970 Hz 500 ms on / 500 ms off	01110	Same tone
19	Interrupted tone medium	1000 Hz @ 0.25 s on / off	01101	800 Hz cont
20	ISO 8201 HF	Intermittent 2850 Hz 500 ms on / 500 ms off	01100	Same tone
21	Continuous tone	1000 Hz continuous	01011	Same tone
22	LF Buzz	800-950 Hz swept @ 110 Hz	01010	800 Hz cont
23	HF Continuous	2800 Hz	01001	2800 Hz cont
24	Sweep tone (9 Hz)	800-970 Hz @ 9 Hz	01000	800 Hz cont
25	German DIN tone	Sweep 1200-500 Hz @ 1 Hz	00111	800 Hz cont
26	Swedish Fire signal	Intermittent 660 Hz 150 ms on / 150 ms off	00110	Same tone
27	French tone AFNOR	554 Hz for 100 ms and 440 Hz for 400 ms	00101	800 Hz cont
28	Swedish all clear signal	Continuous 660 Hz	00100	Same tone
29	US Temporal Pattern HF	2900 Hz for 0.5 s on 0.5 s off x 3 then off for 1.5 s then repeat	00011	2900 Hz cont
30	Siren 2 way ramp (short)	500/1200 Hz rising then falling 0.25 s	00010	800 Hz cont
31	FP1063.1-Telecom	Alternating tone 800/970 Hz @ 2 Hz	00001	800 Hz cont
32	Siren 2 way ramp (long)	500/1200 Hz 3 s rising / 3 s falling	00000	800 Hz cont

## Technical Information

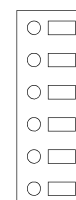
Part No.	VTG-32E-SB			VTG-32E-DB		
	Low	Med	High	Low	Med	High
Sound Level:						
Typical Sound Output @ 1 metre (Tone 1):	86	101	106	86	101	106
Current Consumption @ 24Vdc:	≤ 9mA	≤ 18mA	≤ 36mA	≤ 9mA	≤ 18mA	≤ 36mA
Voltage Range:	21.6 - 28Vdc					
Number of Tones:	32					
Operating Frequency:	440Hz to 2900Hz					
IP Rating:	IP21C			IP33C		
Temperature Range:	- 20°C to + 70°C					
Weight (per unit packed):	220g			250g		
Sounders are available in red or white by adding - R, red or W, white to the end of the part number.						



## Dimensions



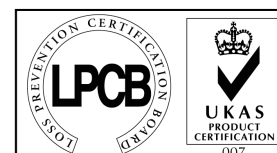
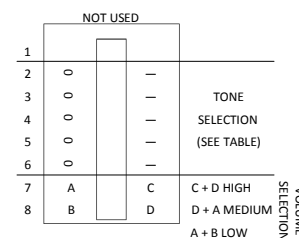
## Connection



For tone wire neg to term 3 and/or 4  
For 2nd tone wire neg to 1 and/or 2

Note that the 2nd tone will over-ride tone

All VTG sounders are delivered with the volume set to high and tone set to 11111 (Cranford sweep)



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## Minimum Sound Output at 1 metre.

### Tone 1 - Cranford Sweep

Horizontal Plane			Vertical Plane		
Angle	28V	21.6V	Angle	28V	21.6V
15°	94.6	92.6	15°	95.2	93.3
45°	97.8	95.7	45°	98.0	96.0
75°	99.5	97.7	75°	99.8	97.8
105°	99.6	97.8	105°	99.7	97.7
135°	98.0	96.0	135°	97.9	96.0
165°	93.2	91.3	165°	92.4	90.6

### Tone 25 - German DIN Tone

Horizontal Plane			Vertical Plane		
Angle	28V	21.6V	Angle	28V	21.6V
15°	93.5	91.6	15°	92.8	90.8
45°	97.7	95.7	45°	97.0	95.2
75°	98.9	96.9	75°	99.1	97.1
105°	98.9	97.0	105°	98.9	97.0
135°	97.4	95.5	135°	97.0	95.0
165°	92.3	90.3	165°	91.9	90.0

### Tone 11 - Dutch Sweep Tone

Horizontal Plane			Vertical Plane		
Angle	28V	21.6V	Angle	28V	21.6V
15°	94.6	92.7	15°	94.1	92.2
45°	98.0	96.0	45°	98.4	96.4
75°	99.7	97.8	75°	99.8	97.8
105°	99.6	97.8	105°	99.5	97.5
135°	98.0	96.0	135°	98.1	96.3
165°	92.4	90.5	165°	93.2	91.3

### Continuous 800Hz Tone (Over ride tone)

Horizontal Plane			Vertical Plane		
Angle	28V	21.6V	Angle	28V	21.6V
15°	92.3	90.3	15°	92.3	90.3
45°	95.4	93.5	45°	95.3	93.3
75°	98.0	96.1	75°	97.8	95.8
105°	97.9	95.9	105°	97.6	95.7
135°	95.8	93.9	135°	95.3	93.4
165°	91.5	89.6	165°	89.6	87.4

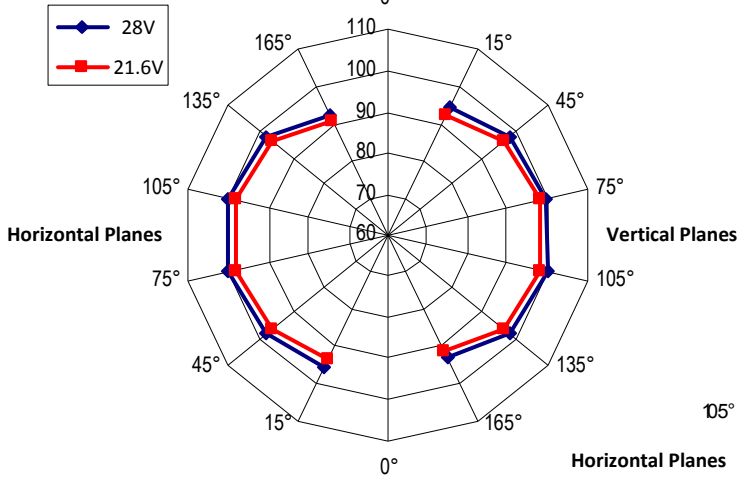
### Tone 27 - French AFNOR Tone

Horizontal Plane			Vertical Plane		
Angle	28V	21.6V	Angle	28V	21.6V
15°	89.7	87.8	15°	89.8	88.0
45°	94.1	92.2	45°	94.5	92.6
75°	95.7	93.7	75°	96.3	94.1
105°	95.7	94.0	105°	95.8	93.9
135°	94.4	92.5	135°	94.0	92.2
165°	87.5	85.6	165°	88.1	86.1

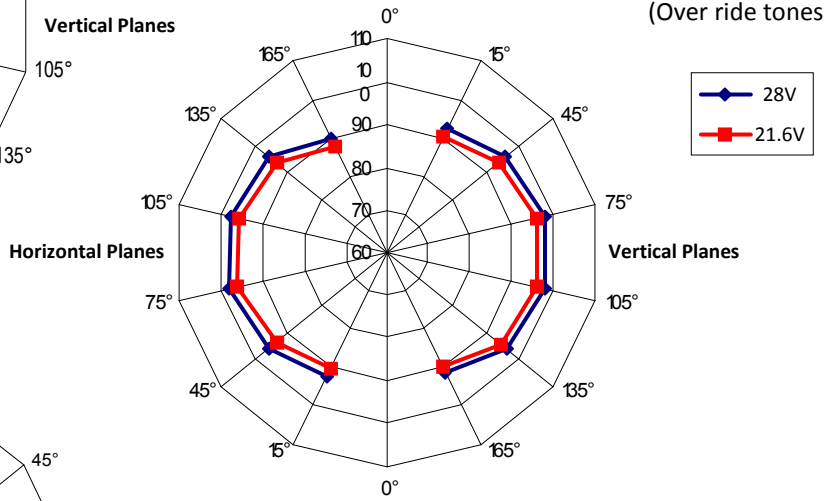
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## EN54 Approved Tone Polar Diagrams

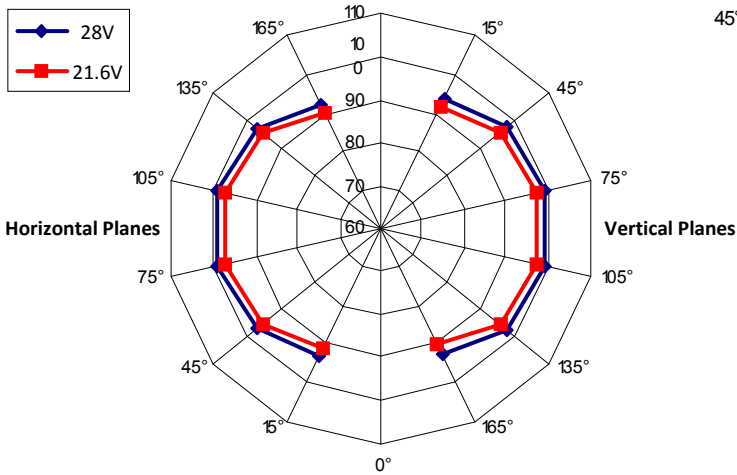
Tone 1 - Cranford Sweep



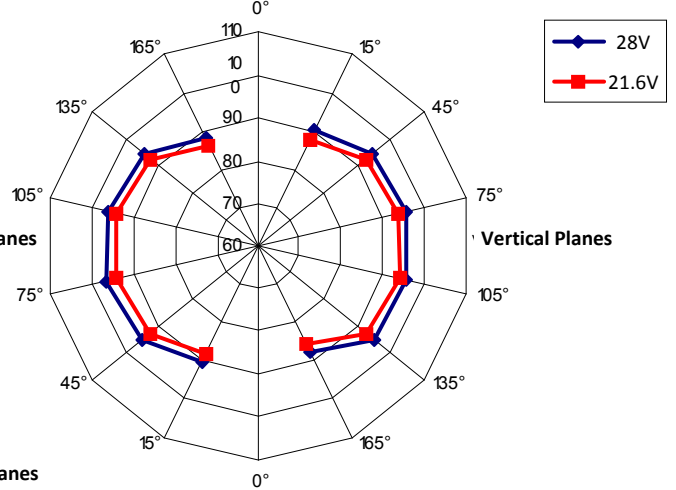
Continuous 800 Hz Tone (Over ride tones)



Tone 25 - German DIN Tone



Tone 27 - French AFNOR Tone



Tone 11 - Dutch Sweep Tone

