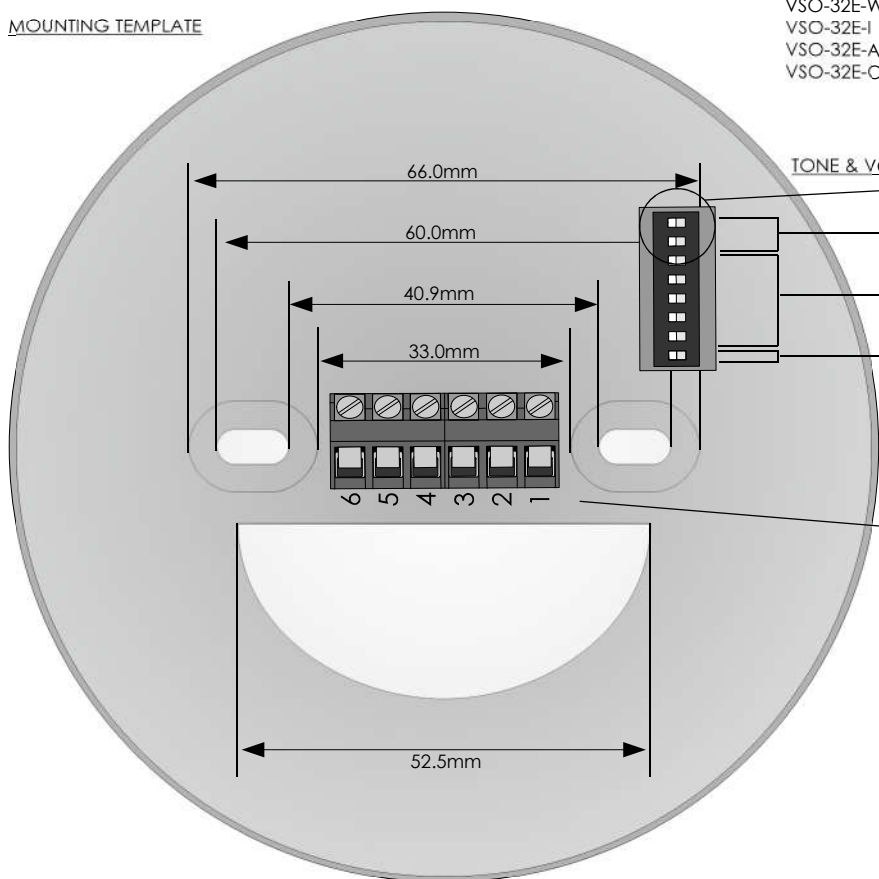


Part Codes	Description
VSO-32E-W	24V EN54 Approved Base Sounder Type A - White
VSO-32E-I	24V EN54 Approved Base Sounder Type A - Ivory
VSO-32E-A	24V EN54 Approved Base Sounder Type A - Alternate White
VSO-32E-OW	24V EN54 Approved Base Sounder Type A - Off White



TONE & VOLUME SELECTION

Volume: 8, 7, 6

Tone: 1, 2, 3, 4, 5, 6

N/A

ON (1) OFF (0)

Volume	8	7	6
High	OFF	ON	
Medium	ON	OFF	
Low	OFF	OFF	

WIRING CONFIGURATION

- 6. (+) Positive
- 5. (+) Positive
- 4. (-) 1st stage tone
- 3. (-) 1st stage tone
- 2. (-) 2nd stage tone
- 1. (-) 2nd stage tone

TECHNICAL INFORMATION

Voltage range (Vdc): 18 - 30
 Operating frequency (Hz): 440 - 2900
 Temperature range (°C): -20 to +70
 Monitoring: Reverse Polarity
 Base diameter (mm): Ø115.0
 Protection rating: IP21C
 Boxed weight (kg): 0.11

sales@cranfordcontrols.com 00 44 (0)1420 592444
 Registered Address: Unit 2, Waterbrook Estate, Waterbrook Road, Alton, GU34 2UD

TONE LIST - PERFORMANCE

No.	Name	1st stage tone (2nd stage tone is 800Hz continuous as standard)	Switch (23456)	Typical Current (mA)			Typical Sound Output (dBA)		
				Low	Medium	High	Low	Medium	High
* 1	LF Sweep (Cranford sweep)	800-1000Hz swept every 500ms (2Hz)	11111	5.7	7.0	9.4	86.2	87.7	91.2
2	Alternative warble BS	800Hz for 250ms, then 960Hz for 250ms	11110	5.5	6.9	9.1	85.3	87.1	90.7
* 3	Warble Tone BS	800Hz for 500ms, then 1000Hz for 500ms	11101	5.5	6.8	9.2	85.2	87.8	91.1
4	Alternative warble BS	500Hz for 250ms, then 600Hz for 250ms	11100	5.0	6.0	7.5	82.7	84.8	87.6
5	HF Back up Interrupted	2800Hz for 1000ms, then off for 1000ms	11011	5.8	7.5	11.5	88.8	91.2	95.3
6	LF Back up Alarm	800Hz for 150ms, then off for 150ms	11010	4.7	6.1	8.7	83.9	86.0	88.9
7	HF Back up Interrupted (fast)	2800Hz for 150ms, then off for 150ms	11001	4.8	6.1	11.3	88.0	90.3	94.3
8	LF Continuous tone BS5839	800Hz continuous	11000	5.4	6.6	8.6	85.0	87.2	90.2
9	Sweep - 1Hz	800-900Hz swept every 1000ms (1Hz)	10111	5.7	6.9	9.1	85.8	88.3	91.4
10	Australian slow whoop	970Hz for 625ms, then off for 150m	10110	5.3	3.4	9.2	85.6	87.8	91.0
11	Continuous/ *Dutch sweep	970Hz Continuous / (500-1200Hz 3.5s on, 1.5s off)	10101	5.5	6.9	8.8	86.3	89.2	93.2
12	Analogue sweep	500-600Hz swept every 500ms (2Hz)	10100	5.0	6.0	7.7	85.3	87.1	89.5
13	Sweep - 3Hz	800-970Hz swept every 333ms (3Hz)	10011	5.7	6.9	9.3	85.6	88.0	91.1
14	Alternate HF slow sweep	2350-2900Hz swept every 333ms (3Hz)	10010	6.0	7.9	11.8	88.1	91.1	94.8
15	Fast HF sweep	2400-2800Hz swept every 143ms (7Hz)	10001	5.9	7.9	11.9	87.7	90.7	94.5
16	US Temporal Pattern LF	950Hz for 500ms on, 500ms off (x3), then 1500ms off	10000	4.9	5.9	8.8	85.7	88.2	91.1
17	Interrupted BS	800Hz for 500ms, then off for 500ms	01111	5.1	6.1	9.0	84.6	88.2	90.1
18	ISO 8201 LF BS5839 Pt 1	970Hz for 500ms, then off for 500ms	01110	5.0	6.0	9.1	85.4	87.6	91.1
19	Interrupted medium	1000Hz for 250ms, then off for 250ms	01101	5.5	5.8	9.4	84.9	87.4	90.4
20	ISO8201 HF	2850Hz for 500ms, then off for 500ms	01100	5.0	6.1	10.6	88.1	91.0	94.4
21	Continuous	1000Hz continuous	01011	5.7	6.9	9.5	85.2	87.9	91.0
22	LF Buzz	800-950Hz swept every 9ms (110Hz)	01010	5.5	6.8	8.8	85.4	87.8	90.8
23	HF Continuous	2800Hz continuous	01001	5.8	7.3	11.0	89.0	91.5	95.2
24	Sweep	800-970Hz swept every 111ms (9Hz)	01000	5.4	6.6	8.7	85.7	88.0	91.1
* 25	German DIN tone	1200-500Hz swept every 1000ms (1Hz)	00111	5.4	6.5	8.6	85.5	87.7	90.7
26	Swedish Fire signal	660Hz for 150ms, then off for 150ms	00110	4.7	5.7	6.8	86.0	88.0	90.6
* 27	French tone AFNOR	554Hz for 100ms, then 440Hz for 400ms	00101	4.9	5.9	7.4	85.2	87.1	89.4
28	Swedish all clear signal	660Hz continuous	00100	5.1	6.3	10.6	87.2	89.3	91.8
29	US Temporal Pattern HF	2900Hz for 500ms on, 500ms off (x3), then 1500ms off	00011	5.3	6.2	8.7	87.4	90.0	93.5
30	Siren 2 way ramp (short)	500-1200Hz rising for 250ms, then falling for 250ms	00010	5.2	6.5	8.6	85.4	87.6	90.6
31	FP1063.1-Telecom	800Hz for 250ms, then 970Hz for 250ms	00001	5.5	6.8	8.8	85.3	87.7	90.8
32	Siren 2 way ramp (long)	500-1200Hz rising for 3000ms, then falling for 3000ms	00000	5.7	7.0	9.24	86.4	88.8	91.8

* Approved tones

Measurements are recorded in an anechoic chamber

Full datasheet available at www.cranfordcontrols.com - DS075F

APPROVALS INFORMATION



G208012

(White version only approved by VdS)



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2831-CPR-F0095



EN54-3:2001 546a/04

TONE LIST - PERFORMANCE

No.	Name	1st stage tone (2nd stage tone is 800Hz continuous as standard)	Switch (23456)	Typical Current (mA)			Typical Sound Output (dBA)		
				Low	Medium	High	Low	Medium	High
* 1	LF Sweep (Cranford sweep)	800-1000Hz swept every 500ms (2Hz)	11111	5.7	7.0	9.4	86.2	87.7	91.2
2	Alternative warble BS	800Hz for 250ms, then 960Hz for 250ms	11110	5.5	6.9	9.1	85.3	87.1	90.7
* 3	Warble Tone BS	800Hz for 500ms, then 1000Hz for 500ms	11101	5.5	6.8	9.2	85.2	87.8	91.1
4	Alternative warble BS	500Hz for 250ms, then 600Hz for 250ms	11100	5.0	6.0	7.5	82.7	84.8	87.6
5	HF Back up Interrupted	2800Hz for 1000ms, then off for 1000ms	11011	5.8	7.5	11.5	88.8	91.2	95.3
6	LF Back up Alarm	800Hz for 150ms, then off for 150ms	11010	4.7	6.1	8.7	83.9	86.0	88.9
7	HF Back up Interrupted (fast)	2800Hz for 150ms, then off for 150ms	11001	4.8	6.1	11.3	88.0	90.3	94.3
8	LF Continuous tone BS5839	800Hz continuous	11000	5.4	6.6	8.6	85.0	87.2	90.2
9	Sweep - 1Hz	800-900Hz swept every 1000ms (1Hz)	10111	5.7	6.9	9.1	85.8	88.3	91.4
10	Australian slow whoop	970Hz for 625ms, then off for 150ms	10110	5.3	3.4	9.2	85.6	87.8	91.0
11	Continuous / * ^{2nd Stage} Dutch sweep	970Hz Continuous / 500-1200Hz 3.5s on, 1.5s off	10101	5.5	6.9	8.8	86.3	89.2	93.2
12	Analogue sweep	500-600Hz swept every 500ms (2Hz)	10100	5.0	6.0	7.7	85.3	87.1	89.5
13	Sweep - 3Hz	800-970Hz swept every 333ms (3Hz)	10011	5.7	6.9	9.3	85.6	88.0	91.1
14	Alternate HF slow sweep	2350-2900Hz swept every 333ms (3Hz)	10010	6.0	7.9	11.8	88.1	91.1	94.8
15	Fast HF sweep	2400-2800Hz swept every 143ms (7Hz)	10001	5.9	7.9	11.9	87.7	90.7	94.5
16	US Temporal Pattern LF	950Hz for 500ms on, 500ms off (x3), then 1500ms off	10000	4.9	5.9	8.8	85.7	88.2	91.1
17	Interrupted BS	800Hz for 500ms, then off for 500ms	01111	5.1	6.1	9.0	84.6	88.2	90.1
18	ISO 8201 LF BS5839 Pt 1	970Hz for 500ms, then off for 500ms	01110	5.0	6.0	9.1	85.4	87.6	91.1
19	Interrupted medium	1000Hz for 250ms, then off for 250ms	01101	5.5	5.8	9.4	84.9	87.4	90.4
20	ISO8201 HF	2850Hz for 500ms, then off for 500ms	01100	5.0	6.1	10.6	88.1	91.0	94.4
21	Continuous	1000Hz continuous	01011	5.7	6.9	9.5	85.2	87.9	91.0
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23	HF Continuous	2800Hz continuous	01001	5.8	7.3	11.0	89.0	91.5	95.2
24	Sweep	800-970Hz swept every 111ms (9Hz)	01000	5.4	6.6	8.7	85.7	88.0	91.1
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* 27	French tone AFNOR	554Hz for 100ms, then 440Hz for 400ms	00101	4.9	5.9	7.4	85.2	87.1	89.4
28	Swedish all clear signal	660Hz continuous	00100	5.1	6.3	10.6	87.2	89.3	91.8
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* Approved tones

Measurements are recorded in an anechoic chamber

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APPROVALS INFORMATION



G208012

(White version only approved by VdS)



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2831-CPR-F0095



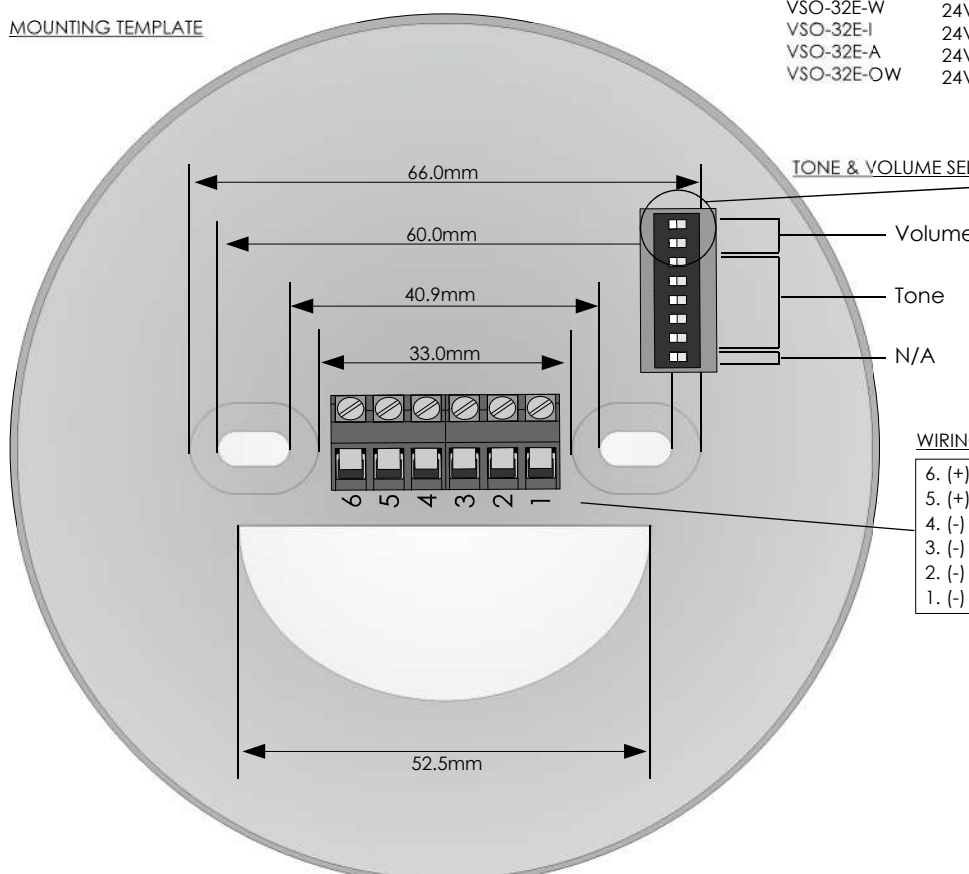
EN54-3:2001 546a/04

Made in UK

Doc Ref: 125-043 Issue: 009



MOUNTING TEMPLATE

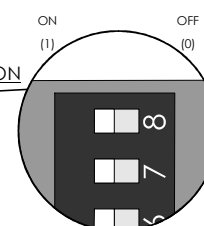


VSO Base Sounder 24VDC EN54 Part 3 Approved

Part Codes	Description
VSO-32E-W	24V EN54 Approved Base Sounder Type A - White
VSO-32E-I	24V EN54 Approved Base Sounder Type A - Ivory
VSO-32E-A	24V EN54 Approved Base Sounder Type A - Alternate White
VSO-32E-OW	24V EN54 Approved Base Sounder Type A - Off White

TONE & VOLUME SELECTION

Volume
Tone
N/A



Volume	Z	8
High	OFF	ON
Medium	ON	OFF
Low	OFF	OFF

WIRING CONFIGURATION

6. (+) Positive
5. (+) Positive
4. (-) 1st stage tone
3. (-) 1st stage tone
2. (-) 2nd stage tone
1. (-) 2nd stage tone

TECHNICAL INFORMATION

Voltage range (Vdc): 18 - 30
Operating frequency (Hz): 440 - 2900
Temperature range (°C): -20 to +70
Monitoring: Reverse Polarity
Base diameter (mm): Ø115.0
Protection rating: IP21C
Boxed weight (kg): 0.11