TONE LIST - PERFORMANCE				Typical Current (mA)			Typical Sound Output (dBA)		
No.	Name	1st Stage Tone (2nd Stage Tone is continuous as standard)	(23456)	Low Medium High			Low Medium Hig		
*1	LF Sweep (Cranford sweep)	800-1000Hz swept every 500ms (2Hz)	11111	10.2	14.8	23.0	78.0	93.0	97.0
2	Alternative warble BS	800Hz for 250ms, then 960Hz for 250ms	11110	9.9	14.6	19.2	80.4	95.7	100.0
*3	Warble Tone BS	800Hz for 500ms, then 1000Hz for 500ms	11101	9.9	14.7	18.9	78.0	93.0	97.0
4	Alternative warble BS	500Hz for 250ms, then 600Hz for 250ms	11100	9.1	12.7	14.9	80.0	95.8	99.1
5	HF Back up Interrupted	2800Hz for 1000ms, then off for 1000ms	11011	12.4	19.4	28.9	79.2	93.7	101.
6	LF Back up Alarm	800Hz for 150ms, then off for 150ms	11010	10.7	15.0	18.2	78.6	93.6	97.2
7	HF Back up Interrupted (fast)	2800Hz for 150ms, then off for 150ms	11001	11.8	19.4	28.8	78.3	92.9	99.9
* 8	LF Continuous tone BS5839	800Hz continuous	11000	9.6	14.0	17.4	79.0	93.0	96.0
9	Sweep - 1Hz	800-900Hz swept every 1000ms (1Hz)	10111	9.9	14.8	19.2	80.2	95.6	99.8
10	Australian slow whoop	970Hz for 625ms, then off for 150m	10110	9.9	15.6	19.5	80.2	95.5	99.9
*11	Dutch sweep	970Hz continuous	10101	10.1	15.0	19.6	79.0	94.0	97.0
12	Analogue sweep	500-600Hz swept every 500ms (2Hz)	10100	9.1	12.6	14.7	80.2	94.8	97.8
13	Sweep - 3Hz	800-970Hz swept every 333ms (3Hz)	10011	9.9	15.0	19.0	80.2	95.7	100.
14	Alternate HF slow sweep	2350-2900Hz swept every 333ms (3Hz)	10010	11.4	19.3	34.5	83.7	95.7	104.
15	Fast HF sweep	2400-2800Hz swept every 143ms (7Hz)	10001	11.4	19.6	34.4	82.6	97.1	104.
16	US Temporal Pattern LF	950Hz for 500ms on, 500ms off (x3), then 1500ms off	10000	10.4	15.1	19.6	80.6	96.0	100.
17	Interrupted BS	800Hz for 500ms, then off for 500ms	01111	9.2	15.1	18.4	79.6	94.5	98.3
18	ISO 8201 LF BS5839 Pt 1	970Hz for 500ms, then off for 500ms	01110	9.2	14.6	20.5	80.1	95.4	99.9
19	Interrupted medium	1000Hz for 250ms, then off for 250ms	01101	11.0	16.0	20.2	78.5	93.8	98.0
20	ISO8201 HF	2850Hz for 500ms, then off for 500ms	01100	12.1	17.5	28.3	79.4	93.4	100.
21	Continuous	1000Hz continuous	01011	10.2	15.1	20.1	78.9	94.2	98.7
22	LF Buzz	800-950Hz swept every 9ms (110Hz)	01010	9.8	14.7	18.9	79.9	95.3	99.
23	HF Continuous	2800Hz continuous	01001	11.3	18.6	29.3	79.3	93.8	101.
24	Sweep	800-970Hz swept every 111ms (9Hz)	01000	9.7	14.6	18.9	80.1	95.5	99.7
* 25	German DIN tone	1200-500Hz swept every 1000ms (1Hz)	00111	9.7	13.5	20.9	78.0	93.0	96.0
26	Swedish Fire signal	660Hz for 150ms, then off for 150ms	00110	10.4	14.3	17.0	76.0	91.9	95.0
27	French tone AFNOR	554Hz for 100ms, then 440Hz for 400ms	00101	9.1	11.9	15.6	76.0	91.0	94.0
28	Swedish all clear signal	660Hz continuous	00100	9.3	13.2	16.2	77.1	93.1	96.8
29	1st Stage tone 2nd Stage tone General Alarm / Continuous	1st Stage tone 2nd Stage tone 1s off,7x (1311Hz, 1s on, 1s off)7s on/ IMO Code 2 Cont 1311Hz	00011	7.0	12.8	21.7	76.2	89.8	95.
30	Siren 2 way ramp (short)	500-1200Hz rising for 250ms, then falling for 250ms	00010	9.4	13.6	17.6	79.2	94.6	98.7
31	FP1063.1-Telecom	800Hz for 250ms, then 970Hz for 250ms	00001	9.8	15.9	19.6	80.2	95.5	100.
32	Siren 2 way ramp (long)	500-1200Hz rising for 3000ms, then falling for 3000ms	00000	9.9	15.0	19.7	81.0	95.9	100.

*Approved tones Measurements are recorded in an anechoic chamber Approved Marine tones are located on switch position 29. General alarm on 1st stage tone. IMO Code 2 on 2nd stage tone. Typical Current Typical Sound **TONE LIST - PERFORMANCE** Switch (mA) Output (dBA) (23456) No. Name 1st Stage Tone (2nd Stage Tone is continuous as standard) Low Medium Hiah Low Medium High *1 11111 10.2 14.8 23.0 78.0 93.0 97.0 LF Sweep (Cranford sweep) 800-1000Hz swept every 500ms (2Hz) 2 11110 9.9 80.4 95.7 100.0 Alternative warble BS 800Hz for 250ms, then 960Hz for 250ms 14.6 19.2 *3 800Hz for 500ms, then 1000Hz for 500ms 11101 9.9 14.7 18.9 78.0 93.0 97.0 Warble Tone BS 500Hz for 250ms, then 600Hz for 250ms 11100 12.7 14.9 80.0 95.8 99.1 Alternative warble BS 11011 79.2 101.0 5 HF Back up Interrupted 2800Hz for 1000ms, then off for 1000ms 12.4 19.4 28.9 93.7 11010 97.2 6 LF Back up Alarm 800Hz for 150ms, then off for 150ms 10.7 15.0 18.2 78.6 93.6 11001 11.8 19.4 28.8 78.3 92.9 99.9 7 HF Back up Interrupted (fast) 2800Hz for 150ms, then off for 150ms * 8 800Hz continuous 11000 14.0 17.4 79.0 93.0 96.0 LF Continuous tone BS5839 9.6 9 Sweep - 1Hz 800-900Hz swept every 1000ms (1Hz) 10111 99 14.8 19 2 80.2 95.6 998 10110 10 Australian slow whoop 970Hz for 625ms, then off for 150m 9.9 15.6 19.5 80.2 95.5 99.9 10101 11 **Dutch sweep** 970Hz continuous 10.1 15.0 19.6 79.0 94.0 97.0 10100 500-600Hz swept every 500ms (2Hz) 80.2 94.8 97.8 12 Analogue sweep 9.1 12.6 14.7 10011 9.9 80.2 95.7 100.0 800-970Hz swept every 333ms (3Hz) 15.0 19.0 13 Sweep - 3Hz Alternate HF slow sweep 2350-2900Hz swept every 333ms (3Hz) 10010 19.3 83.7 95.7 104.6 11.4 34.5 14 Fast HF sweep 82.6 15 2400-2800Hz swept every 143ms (7Hz) 10001 11.4 19.6 34.4 97.1 104.2 16 US Temporal Pattern LF 950Hz for 500ms on, 500ms off (x3), then 1500ms off 10000 10.4 15.1 19.6 80.6 96.0 100.5 17 Interrupted BS 800Hz for 500ms, then off for 500ms 01111 9.2 15.1 18.4 79.6 94.5 98.3 ISO 8201 LF BS5839 Pt 1 01110 18 970Hz for 500ms, then off for 500ms 9.2 14.6 20.5 80.1 95.4 99.9 01101 78.5 93.8 98.0 19 Interrupted medium 1000Hz for 250ms, then off for 250ms 11.0 16.0 20.2 20 ISO8201 HF 2850Hz for 500ms, then off for 500ms 01100 12.1 17.5 28.3 79.4 93.4 100.7 21 Continuous 01011 10.2 15.1 20.1 78.9 942 98 7 1000Hz continuous 22 LF Buzz 800-950Hz swept every 9ms (110Hz) 01010 9.8 147 18.9 79.9 95.3 99.5 23 HF Continuous 2800Hz continuous 01001 11.3 18.6 29.3 79.3 93.8 101.1 01000 18.9 80.1 95.5 99.7 24 800-970Hz swept every 111ms (9Hz) 9.7 14.6 Sweep 00111 78.0 93.0 96.0 German DIN tone 1200-500Hz swept every 1000ms (1Hz) 9.7 20.9 25 13.5 00110 91.9 Swedish Fire signal 660Hz for 150ms, then off for 150ms 17.0 95.6 26 10.4 14.3 76.0 27 00101 9.1 15.6 91.0 94.0 French tone AFNOR 554Hz for 100ms, then 440Hz for 400ms 11.9 76.0 28 Swedish all clear signal 00100 9.3 77.1 93.1 96.8 660Hz continuous 13.2 16.2 1st Stage tone 2nd Stage tone General Alarm / Continuous 1st Stage tone 2nd Stage tone 1s off,7x (1311Hz, 1s on, 1s off)7s on/ IMO Code 2 Cont 1311Hz 00011 7.0 12.8 21.7 76.2 89.8 95.5 30 500-1200Hz rising for 250ms, then falling for 250ms 00010 9.4 13.6 17.6 79.2 94.6 98.7 Siren 2 way ramp (short)

*Approved tones Measurements are recorded in an anechoic chamber

31 FP1063.1-Telecom

32 Siren 2 way ramp (long)

TECHNICAL INFORMATION

Voltage Range (Vdc): 21 - 28

Number of Tones: 32

Operating Frequency (Hz): 440 - 2900

Temperature Range (°C): -20 to +70

Flash Rate: c.1Hz

Monitoring: Reverse Polarity
Protection Rating: IP65 Deep Base
Protection Rating: IP43 Shallow Base

Boxed Weight (kg): 0.25
Base Diameter (mm): Ø93.0
Material: ABS fire retardant plastic



For any technical queries contact Tel: +44 (0) 1420 592 444 E-mail: technical@cranfordcontrols.com



Made in UK

Doc Ref: 125-129 Issue: 009

TECHNICAL INFORMATION

Voltage Range (Vdc): 21 - 28

Number of Tones: 32

Operating Frequency (Hz): 440 - 2900

Temperature Range (°C): -20 to +70

Flash Rate: c.1Hz

Monitoring: Reverse Polarity

Protection Rating: IP65 Deep Base

Protection Rating: IP43 Shallow Base Boxed Weight (kg): 0.25

Base Diameter (mm): Ø93.0

Material: ABS fire retardant plastic



For any technical queries contact Tel: +44 (0) 1420 592 444

Tel: +44 (0) 1420 592 444 E-mail: technical@cranfordcontrols.com



Made in UK

Doc Ref: 125-129 Issue: 009

500-1200Hz rising for 3000ms, then falling for 3000ms

00001

00000

9.8 15.9

9.9

15.0

19.6

19.7

80.2

81.0

95.5 100.0

95.9

100.2

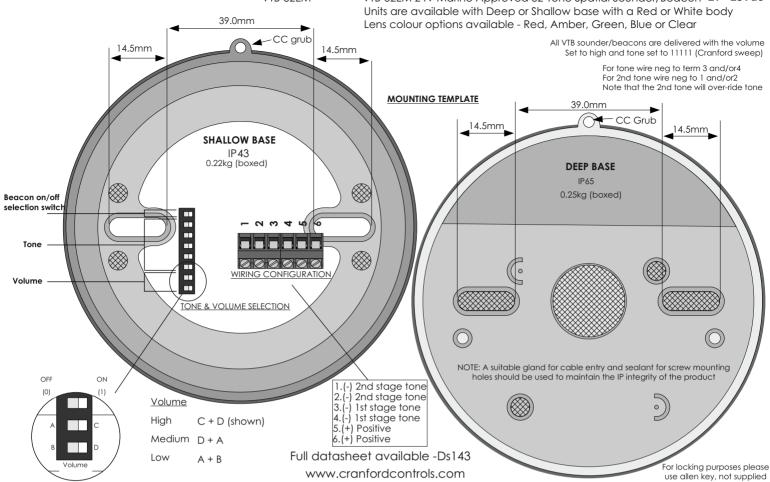
800Hz for 250ms, then 970Hz for 250ms

Part Number

VTB-32EM

VTB-32EM 24 Volt 32-Tone Spatial Sounder/Beacon - Marine Approved Voltage Range

VTB-32EM 24V Marine Approved 32-Tone Spatial Sounder/Beacon 21 - 28Vdc





Part Number VTB-32EM

Instruction Insert VTB-32EM 24 Volt 32-Tone Spatial Sounder/Beacon - Marine Approved Voltage Range

Description

VTB-32EM 24V Marine Approved 32-Tone Spatial Sounder/Beacon 21 - 28Vdc Units are available with Deep or Shallow base with a Red or White body

