This family of sounders have been designed to cover a wide spectrum of applications. The 24 volt version is for use with conventional fire alarm systems and as standard comes with 32 tones.

The sounder is supplied with a two-stage alarm override which is activated by a third negative wire from the fire panel.

All tones have been selected to comply with the latest sound patterns and frequencies used throughout the world. All tone options are fully synchronised.

- 32 tones plus a selectable override tone
- designed to work with both conventional systems
- shallow base IP43 and deep base IP65 versions available
- unique twist and lock bayonet mounting system
- removable cover on deep base for surface wiring
- features base locking system as standard

TECHNICAL

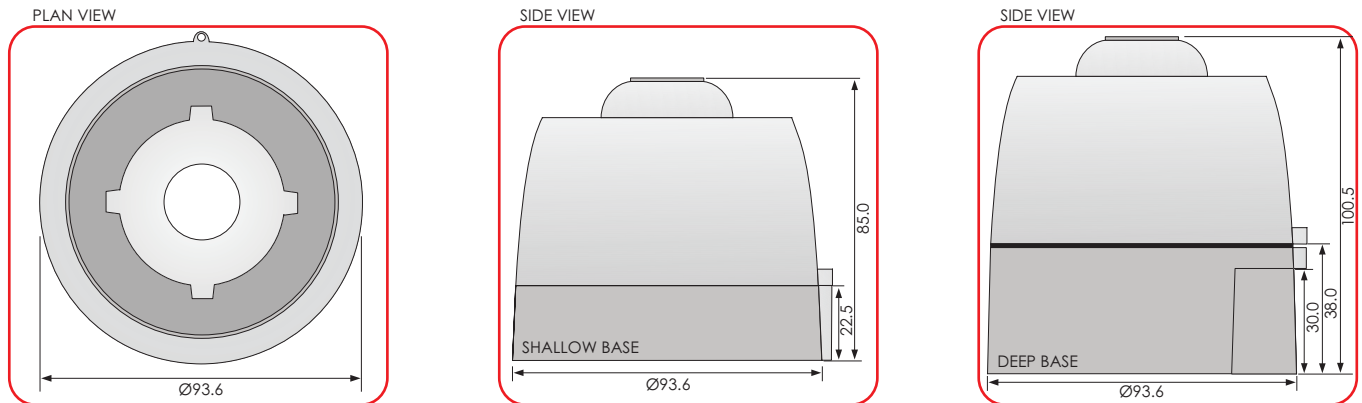|		
voltage range (Vdc)	15 - 35	
number of tones	32	
operating frequency (Hz)	440 - 2900	
temperature range (°C)	-20 to +70	
monitoring	reverse polarity	
protection rating	IP43 (shallow)	IP65 (deep)
boxed weight (kg)	0.22 (shallow)	0.25 (deep)
body colours available	red or white (ABS fire retardant plastic)	

PERFORMANCE

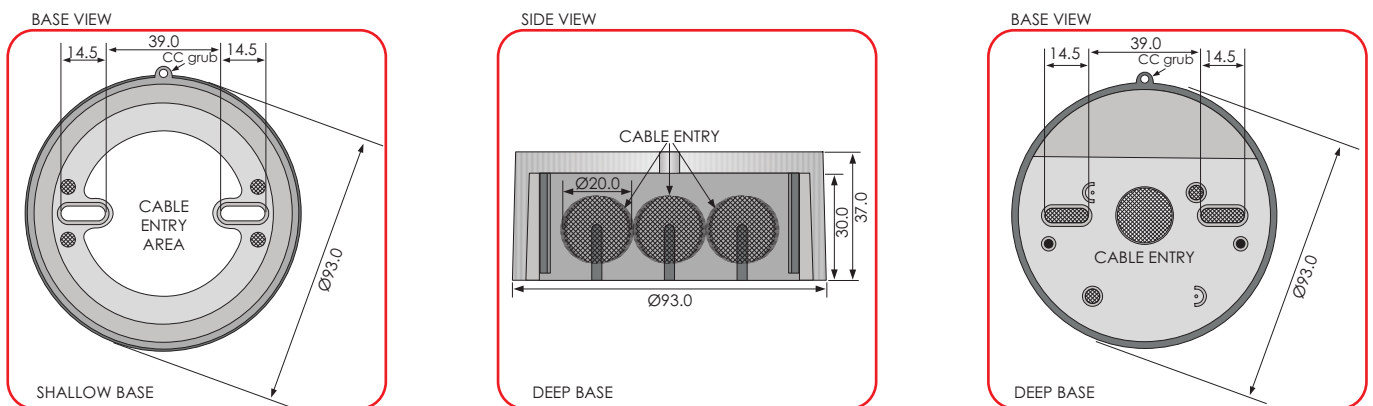| volume setting	high	med	low
sound output, typical (dBA)	102.3	97.6	82.1
sound output, anechoic chamber (dBA)	99.9	95.6	80.1
sound output, reverberation chamber (dBA)	117.7	110.7	95.3
max. current consumption @ 24Vdc (mA)	30.8	16.4	8.3
power consumption @ 24Vdc (mW)	739	394	199
NB: see tone list performance for more accurate current consumption figures			

ORDERING INFORMATION

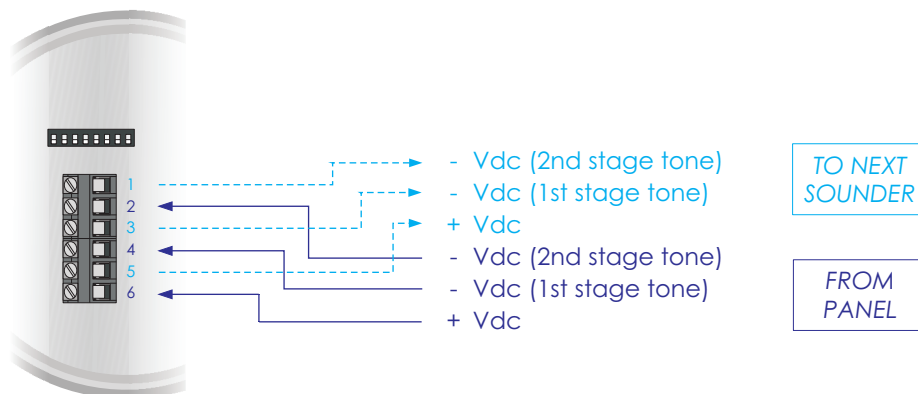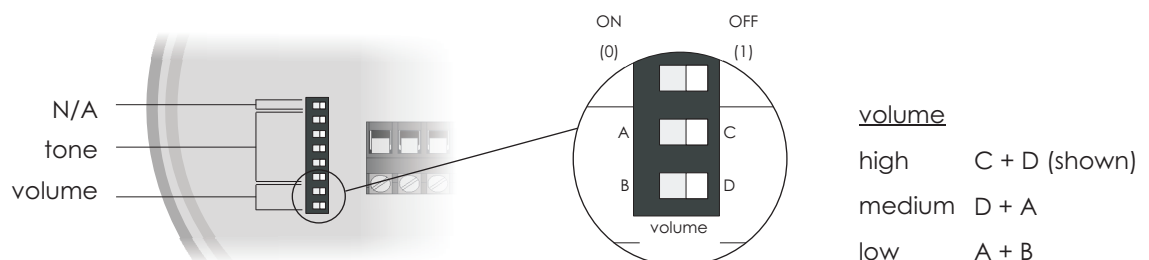|	
red body, 32 tone, deep base	FSA3N
white body, 32 tone, deep base	FSA3NW
(other colour and base combinations are available)	

DIMENSIONS

PLAN VIEW

SIDE VIEW

SIDE VIEW

Ø93.6

85.0

SHALLOW BASE
Ø93.6
22.5

DEEP BASE
Ø93.6
100.5
30.0
38.0

PRODUCT MOUNTING & CABLE ENTRY

BASE VIEW

39.0
14.5 CC grub 14.5

CABLE
ENTRY
AREA

Ø93.0

SHALLOW BASE

SIDE VIEW

CABLE ENTRY

Ø20.0
30.0
37.0
Ø93.0

DEEP BASE

BASE VIEW

39.0
14.5 CC grub 14.5

CABLE ENTRY

Ø93.0

DEEP BASE

WIRING CONFIGURATION

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

TO NEXT SOUNDER

FROM PANEL

TONE & VOLUME SELECTION

N/A
tone
volume

ON OFF
(0) (1)

A   C
B   D
volume

volume

high	C + D (shown)
medium	D + A
low	A + B

firesafe
fire safety equipment

TONE LIST - GRAPHICAL

no.	name	1st stage frequency	1st stage graphical	2nd stage frequency	2nd stage graphical
1	LF Sweep	800-1000Hz swept every 500ms (2Hz)		800Hz continuous	
2	Alternative warble BS	800Hz for 250ms, then 960Hz for 250ms		800Hz continuous	
3	Warble Tone BS	800Hz for 500ms, then 1000Hz for 500ms		800Hz continuous	
4	Alternative warble BS	500Hz for 250ms, then 600Hz for 250ms		500Hz continuous	
5	HF Back up Interrupted	2800Hz for 1000ms, then off for 1000ms		2800Hz continuous	
6	LF Back up Alarm	800Hz for 150ms, then off for 150ms		800Hz continuous	
7	HF Back up Interrupted (fast)	2800Hz for 150ms, then off for 150ms		800Hz continuous	
8	LF Continuous tone BS5839	800Hz continuous		800Hz continuous	
9	Sweep - 9Hz	800-900Hz swept every 1000ms (1Hz)		800Hz continuous	
10	Australian slow whoop	970Hz for 625ms, then off for 150m		500-1200Hz for 3250ms, then off for 250ms	
11	Dutch sweep	970Hz continuous		500-1200Hz for 3500ms, then off for 500ms	
12	Analogue sweep	500-600Hz swept every 500ms (2Hz)		500Hz continuous	
13	Sweep - 3Hz	800-970Hz swept every 333ms (3Hz)		800Hz continuous	
14	Alternate HF slow sweep	2350-2900Hz swept every 333ms (3Hz)		2400Hz continuous	
15	Fast HF sweep	2400-2800Hz swept every 143ms (7Hz)		2400Hz continuous	
16	US Temporal Pattern LF	950Hz for 500ms on, 500ms off (x3), then 1500ms off		800Hz continuous	
17	Interrupted BS	800Hz for 500ms, then off for 500ms		800Hz continuous	
18	ISO 8201 LF BS5839 Pt 1	970Hz for 500ms, then off for 500ms		970Hz for 500ms, then off for 500ms	
19	Interrupted medium	1000Hz for 250ms, then off for 250ms		800Hz continuous	
20	ISO8201 HF	2850Hz for 500ms, then off for 500ms		2850Hz for 500ms, then off for 500ms	
21	Continuous	1000Hz continuous		1000Hz continuous	
22	LF Buzz	800-950Hz swept every 9ms (110Hz)		800Hz continuous	
23	HF Continuous	2800Hz continuous		2800Hz continuous	
24	Sweep	800-970Hz swept every 111ms (9Hz)		800Hz continuous	
25	German DIN tone	1200-500Hz swept every 1000ms (1Hz)		800Hz continuous	
26	Swedish Fire signal	660Hz for 150ms, then off for 150ms		660Hz for 150ms, then off for 150ms	
27	French tone AFNOR	554Hz for 100ms, then 440Hz for 400ms		800Hz continuous	
28	Swedish all clear signal	660Hz continuous		660Hz continuous	
29	US Temporal Pattern HF	2900Hz for 500ms on, 500ms off (x3), then1500ms off		2900Hz continuous	
30	Siren 2 way ramp (short)	500-1200Hz rising for 250ms, then falling for 250ms		800Hz continuous	
31	FP1063.1-Telecom	800Hz for 250ms, then 970Hz for 250ms		800Hz continuous	
32	Siren 2 way ramp (long)	500-1200Hz rising for 3000ms, then falling for 3000ms		800Hz continuous	

TONE LIST - PERFORMANCE

no.	name	1st stage frequency	switch	typical current (mA)			typical sound output (dBA)		
				low	medium	high	low	medium	high
1	LF Sweep	800-1000Hz swept every 500ms (2Hz)	11111	7.3	12.4	17.3	80.1	95.6	99.9
2	Alternative warble BS	800Hz for 250ms, then 960Hz for 250ms	11110	7.2	12.7	17.2	80.4	95.7	100.0
3	Warble Tone BS	800Hz for 500ms, then 1000Hz for 500ms	11101	7.2	12.3	17.2	79.7	94.7	98.5
4	Alternative warble BS	500Hz for 250ms, then 600Hz for 250ms	11100	6.3	10.2	12.9	80.0	95.8	99.1
5	HF Back up Interrupted	2800Hz for 1000ms, then off for 1000ms	11011	8.7	17.1	27.5	79.2	93.7	101.0
6	LF Back up Alarm	800Hz for 150ms, then off for 150ms	11010	6.3	11.6	15.9	78.6	93.6	97.2
7	HF Back up Interrupted (fast)	2800Hz for 150ms, then off for 150ms	11001	6.4	17.0	27.3	78.3	92.9	99.9
8	LF Continuous tone BS5839	800Hz continuous	11000	8.6	11.5	15.8	79.8	94.7	98.4
9	Sweep - 9Hz	800-900Hz swept every 1000ms (1Hz)	10111	6.8	11.9	16.7	80.2	95.6	99.8
10	Australian slow whoop	970Hz for 625ms, then off for 150m	10110	7.2	13.1	17.5	80.2	95.5	99.9
11	Dutch sweep	970Hz continuous	10101	7.0	13.1	17.8	80.2	95.5	100.1
12	Analogue sweep	500-600Hz swept every 500ms (2Hz)	10100	7.3	10.1	12.6	80.2	94.8	97.8
13	Sweep - 3Hz	800-970Hz swept every 333ms (3Hz)	10011	6.3	12.2	17.2	80.2	95.7	100.0
14	Alternate HF slow sweep	2350-2900Hz swept every 333ms (3Hz)	10010	7.2	16.3	30.8	83.7	95.7	104.6
15	Fast HF sweep	2400-2800Hz swept every 143ms (7Hz)	10001	8.5	15.9	29.9	82.6	97.1	104.2
16	US Temporal Pattern LF	950Hz for 500ms on, 500ms off (x3), then 1500ms off	10000	8.5	12.0	17.2	80.6	96.0	100.5
17	Interrupted BS	800Hz for 500ms, then off for 500ms	01111	6.2	11.6	16.1	79.6	94.5	98.3
18	ISO 8201 LF BS5839 Pt 1	970Hz for 500ms, then off for 500ms	01110	6.4	13.0	17.7	80.1	95.4	99.9
19	Interrupted medium	1000Hz for 250ms, then off for 250ms	01101	6.4	12.6	17.9	78.5	93.8	98.0
20	ISO8201 HF	2850Hz for 500ms, then off for 500ms	01100	6.2	18.0	27.0	79.4	93.4	100.7
21	Continuous	1000Hz continuous	01011	8.5	12.7	18.0	78.9	94.2	98.7
22	LF Buzz	800-950Hz swept every 9ms (110Hz)	01010	7.4	12.0	16.8	79.9	95.3	99.5
23	HF Continuous	2800Hz continuous	01001	7.1	17.1	27.5	79.3	93.8	101.1
24	Sweep	800-970Hz swept every 111ms (9Hz)	01000	8.5	12.0	16.7	80.1	95.5	99.7
25	German DIN tone	1200-500Hz swept every 1000ms (1Hz)	00111	7.0	13.7	19.3	79.5	95.0	99.0
26	Swedish Fire signal	660Hz for 150ms, then off for 150ms	00110	6.2	10.5	14.2	76.0	91.9	95.6
27	French tone AFNOR	554Hz for 100ms, then 440Hz for 400ms	00101	6.2	9.3	11.6	76.9	93.1	95.9
28	Swedish all clear signal	660Hz continuous	00100	6.4	10.4	14.0	77.1	93.1	96.8
29	US Temporal Pattern HF	2900Hz for 500ms on, 500ms off (x3), then1500ms off	00011	8.6	18.5	27.1	79.2	93.1	100.4
30	Siren 2 way ramp (short)	500-1200Hz rising for 250ms, then falling for 250ms	00010	6.8	11.2	19.0	79.2	94.6	98.7
31	FP1063.1-Telecom	800Hz for 250ms, then 970Hz for 250ms	00001	7.1	12.6	16.8	80.2	95.5	100.0
32	Siren 2 way ramp (long)	500-1200Hz rising for 3000ms, then falling for 3000ms	00000	7.2	12.7	18.1	81.0	95.9	100.2