RTK Instruments Limited
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SA5 Safe Area Multitone Sounder

Description

The SA5 Sounder is a lightweight warning Sounder with 32 user-selectable tones and an output level of up to 112dB. The Sounder enclosure is rated to IP65.

Installation

Mounting
The Sounder should be mounted using the six available fixing holes in the base (Fig 1).

Removing and Replacing the cover
The cover is removed by pushing and twisting the base. If required, the cover can be locked to the base of the Sounder by turning the small screw on the back of the unit (see Fig 2).

Wiring
The base has two knockouts on the side to accommodate a 20mm conduit or M20 cable gland. Ensure that only the correct glands are used to maintain the IP rating of the final assembly.

Recommended Cable
0.5 to 2.5mm^2 diameter cable with earthed screen and insulating sheath is required.

Sound Level
The sound level for each of the individual tones are shown in Table 1. This is assuming the SA5 is set at full volume. A single turn potentiometer is provided to reduce the volume level by up to 20dB.

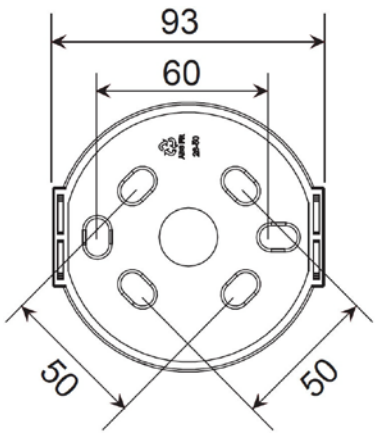

Fig 1: Mounting

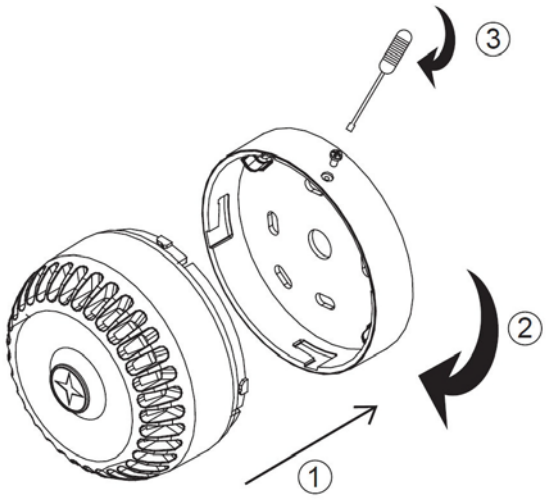

Fig 2: Cover/Locking mechanism

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Connection Details

Standard Connection
This is the normal connection when you simply want to switch on the Sounder when power is applied as shown in Fig 3.

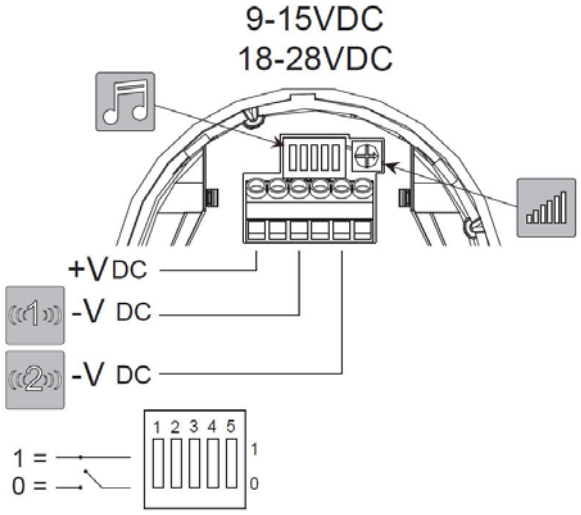

Fig 3: Connections

Second Tone
If the second tone is required, it can be set by connecting 0V to the 2nd tone terminal as shown in Fig 3.

Labelling

The sounder is shipped with the following labels:-

- A label marking with the appropriate Serial No and manufacturing date on the bottom of the enclosure
- A label on the SA5 Sounder as shown in Fig 4 showing all relevant information.

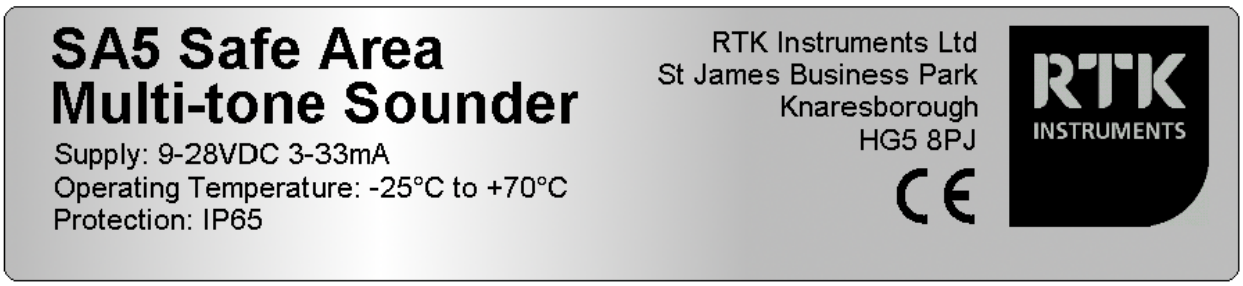

Fig 4: Label

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Specification

Supply
12 to 24VDC +/-20%
Max current, 33mA @24V, max 17mA @ 12V

Environment
Operating temperature : -25°C to +70°C

Protection
IP65

Construction
ABS

Cable Entry
The base has two knockouts on the side to accommodate a 20mm conduit or M20 cable glands

Connections
For cable up to 2.5mm^2

Maintenance

During the life of the sounder, it should require little or no maintenance. However, if abnormal or unusual environmental conditions occur or due to plant damage or accident etc, then a visual inspection is recommended.

Faulty Units
If a fault is found, faulty units should be returned to RTK for investigation and possible replacement.

Other RTK Products

RTK Instruments produce a range of complementary products for many applications in the Industrial Control and Instrumentaton field for both safe and hazardous areas, as listed below. All standard products come with a 5 year warranty from this ISO9001:2000 approved company:

Alarm Annunciators
Sequence of Event Recorders
Rack Mounted Alarm Systems
Power Supplies
Complete range of Hazardous Area product including:
- Intrinscially Safe Alarm Annunciators
- Explosion Proof Alarm Annunciators
- LED Beacons and Light Towers
- LED Indicators
- Illuminated switches and pushbuttons
- Sounders
- Relays
- Multiplexers

Manufacturers of
Alarm Annunciators and Systems
Event Recorders
Hazardous Area Notification Products
Engineered Solutions

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Tone Table

No.	Descripton	2nd Tone	Code 12345	Typical current		Typical Sound Output*	
				12V	24V	12V	24V
1	Alternating Tones 800/970 at 2 Hz	14	11111	8	16	94	101
2	Sweeping 800/970 Hz at 7 Hz	14	11110	8	16	95	102
3	Sweeping 800/970 Hz at 1 Hz	14	11101	8	16	96	102
4	Continuous at 2850 Hz	14	11100	14	30	105	111
5	Sweeping 2400-2850 Hz at 7 Hz	4	11011	16	28	104	111
6	Sweeping 2400-2850 Hz at 1 Hz	4	11010	15	28	104	111
7	Slow Whoop 500-1200 Hz 3s on 0.5 off	14	11001	10	18	93	99
8	Sweep 1200-500 Hz at 1 Hz	14	11000	7	14	92	99
9	Alternating Tones 2400/2850 2 Hz	4	10111	17	28	103	110
10	Intermittent Tone of 970 Hz at 1 Hz	14	10110	7	10	94	101
11	Alternating Tones 800/970 Hz at 1 Hz	14	10101	8	16	94	101
12	Intermittent Tone at 2850 Hz at 1 Hz	4	10100	12	22	103	110
13	Intermittent 970 Hz 0.25s on 1s off	14	10011	3	6	90	97
14	Continuous at 970 Hz	14	10010	9	18	95	102
15	Alternating 554 Hz for 100 ms/440 Hz for 400ms	14	10001	5	10	88	94
16	Intermittent 660 Hz 150ms On/150 ms Off	16	10000	4	7	81	87
17	Intermittent 660 Hz 1.8s On/1.8s Off	17	01111	5	10	84	89
18	Intermittent 660 Hz 6.5s On/13s Off	18	01110	6	12	84	89
19	Contuous 660 Hz	19	01101	6	12	84	90
20	Alternating 554/440 Hz at 1 Hz	20	01100	5	11	91	97
21	Intermittent 660 Hz at 1 Hz	21	01011	4	8	82	88
22	Intermittent 2850 Hz 150 ms On/100 ms Off	14	01010	11	20	102	110
23	Sweep 800-970 Hz at 50 Hz	14	01001	8	16	96	102
24	Sweep 2400-2850 Hz at 50 Hz	4	01000	12	23	104	111
25	Intermittent 970 Hz 500ms On/500ms Off	25	00111	7	12	93	100
26	Intermittent 2850 Hz 500ms On/500ms Off	26	00110	10	18	102	109
27	Continuous at 4k Hz	27	00101	16	33	76	84
28	Alternating tones 800/970 at 2 Hz	10	00100	8	15	94	101
29	Alternating tones 988/645 at 2 Hz	988 Hz	00011	13	19	93	100
30	Alternating 510/610 at 1 Hz	510 Hz	00010	9	13	92	97
31	Sweeping 300-1200 at 1 Hz	31	00001	13	19	91	97
32	Continuous at 4k Hz	27	00101	16	33	76	84

*When tested in fully anechoic conditions. In practical semi-reverberant conditions outputs may be up to 5dB(A) higher dependant on the tone employed.

Manufacturers of
Alarm Annunciators and Systems
Event Recorders
Hazardous Area Notification Products
Engineered Solutions

ISO 9001
FM 14290