DI-9405
Addressable Sounder Base

Features

- ✧ With “sandwich” structure, it is easy to be installed between DB-01 base and a detector.
- ✧ Three working modes settable (Mode I, II, III, and the latter two available with pre-alarm state).
- ✧ 16 tones of sound.
- ✧ Electronically addressed. The address and tones can be modified in field.
- ✧ Tone 14 and 16 are certified by EN54-3.

Description

DI-9405 Addressable Sounder Base is integrated with a buzzer. When there is a confirmed fire, it will give audible alarm signal to warn people in field.
With a built-in microprocessor, the sounder base can communicate with fire alarm control panel (FACP). On receiving a start command from the FACP, the microprocessor will control the buzzer to generate pre-alarm or fire alarm sound according to the pre-set working mode.

Wiring and Connection

Terminals of the sounder base are shown in Fig. 1.

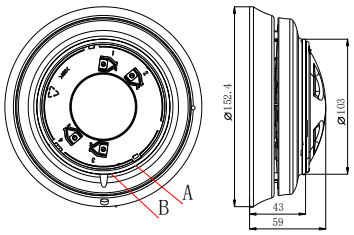

Fig. 1

Z1(1), Z2(3): Signal loop of FACP, polarity-insensitive.
Recommended Wiring
1.0mm^2 or above fire cable, subject to local codes.

Installation

Warning: Before installing the sounder base, disconnect the power from the loop and verify that all the bases are securely fixed and that the wiring is correct on each base.

1 Before installation, make sure the enclosure is free from scratch or distortion, and labels are complete.
2 Mounting of the sounder base is shown in Fig. 2.
3 Secure the sounder base to detector base (Fig. 4) with 2 tapping screws, and wire them properly. Align the orientation mark B on the sounder base to mark C of the base, and rotate the sounder base clockwise to D. Refer to Fig. 3 and 4.
4 If the sounder base comes with a cover, align the orientation mark on the cover to mark A of the sounder base (Fig. 1), and rotate the cover clockwise to B. If it's used as detector base, remove the cover and install the detector on it with the same method.

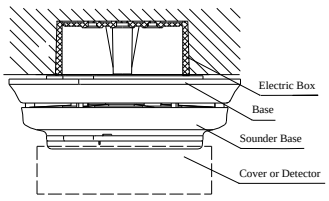

Fig. 2

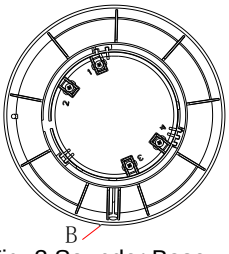

Fig. 3 Sounder Base

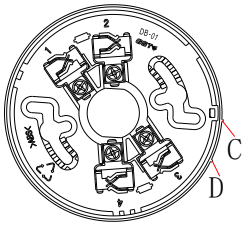

Fig. 4 DB-01 Base

Application

The sounder base can be used as the base of intelligent heat and smoke detectors to combine detection and alarm in a single device. It can be connected to the loop of FACP without additional power supply.

Working Mode Setup and Tone Selection:
The sounder base has three working modes. The factory default is tone 14, mode I.
The sounder base has 16 tones, the setup of which also decides the setup of working modes.

- ➢ If the sounder base is set with one of the tones from No. 1 to 16, it works in Mode I.
- ➢ If it is set with one of the tones from No. 17 to 32, it works in Mode II.
- ➢ If it is set with one of the tones from No. 33 to 48, it works in Mode III.
- ➢ Tone 1~16, 17~32 and tone 33~48 are completely the same by one-to-one correspondence, with the only difference that they work in different modes. Please refer to the table of tones.

Working Modes:

Mode	Address	Type of fire alarm
I	Single address, occupying one loop point **Note: Detector & beacon base must have different addresses.**	Standalone. The sounder base sends alarm signal when started.
II	Dual addresses, sharing higher address with detector	The sounder base sends pre-alarm signal when starting higher address and fire alarm signal when starting lower address.
III	Occupying dual addresses individually	The sounder base sends pre-alarm signal when starting lower address and fire alarm signal when starting higher address.

Operation:
The address, working mode and tone of the sounder base can be programmed using P-9910B programmer in field.

✧ **Address Programming**

Connect the programmer with Terminal 1 and 3 of the sounder base. Turn on the programmer, enter the address code (1 to 242), pressing *Program*, the screen will show a "P" meaning the address is programmed. Refer to *P-9910B Hand Held Programmer Installation and Operation Manual* for details.

✧ **Setting Tone and Working Mode**

In standby state of the programmer, entering password followed by *Clear,* the screen will show "0". Pressing *Function*, the screen still shows "0". Pressing "3" then, the screen shows "-". Entering the tone number, and pressing *Program, "*P" will show on the screen, meaning the tone number has been set. Pressing *Clear*, the screen shows "0", further operation can be done. If the tone number falls into the range of 1 to 16, the flashing beacon base works in Mode I; if the number falls into the range of 17 to 32, it works in Mode II; if the number falls into the range of 33-48, it works in Mode III. Numbers outside these three ranges will not be accepted, in which case, the number will be defaulted to be "46".

Application Method

- The sounder base can be used as a detector base to mount intelligent detectors, so that the detector can carry out both fire detection and alarm.
- It can also be directly connected into fire alarm system. In case of a fire alarm, it will generate the pre-set alarm sound.

Caution:

- Please read this manual carefully before operation.
- DB-01 base should be used together with this product.
- A loop can have maximum 30 sounder bases due to their current consumption.
- Please order the special top cover if it's not connected with fire detector.
- Never try to repair it by yourself. Always contact your distributor in case of any trouble.

Specifications

Operating Voltage	Loop 24V (20V~28V)
Standby Current	≤1mA
Alarm Current	≤6mA
Standby Power Consumption	≤0.024W
Alarm Power Consumption	≤0.144W
Sound Level	Refer to attached table (1m ahead horizontally (A weighted))
Mode	Mode I, II & III
Alarm tones	Optional 16 tones. Please refer to the table of tones.
Programming	Electronically programmed
Code Range	1~242
Wiring	Two-wire
Application Environment	Type A
Ingress Protection Rating	IP21C
Operating Temperature	-10℃~+50℃
Relative Humidity	≤95%, non condensing
Material of Enclosure	ABS
Dimension	Diameter: 152.4mm Height: 43mm (without cover)
Mounting Hole Distance	45mm~80mm
Weight	About 233g

Accessories and Tools

Model	Name	Remark
P-9910B	Hand Held Programmer	Order separately

WEEE Information

2012/19/EU (WEEE directive): Products marked with this symbol cannot be disposed of as unsorted municipal waste in the European Union. For proper recycling, return this product to your local supplier upon the purchase of equivalent new equipment, or dispose of it at designated collection points.

Limited Warranty

GST warrants that the product will be free from defects in design, materials and workmanship during the warranty period. This warranty shall not apply to any product that is found to have been improperly installed or used in any way not in accordance with the instructions supplied with the product. Anybody, including the agents, distributors or employees, is not in the position to amend the contents of this warranty. Please contact your local distributor for products not covered by this warranty.

Appendix Table of Tones

Mode			Tone Description	Sound Level 1m Ahead/ 24V （dB）
I	II	III		
1	17	33	970Hz	85
2	18	34	800Hz /970Hz @ 2Hz	88
3	19	35	800Hz-970Hz@1Hz	86
4	20	36	970Hz 1s on /1s off	86
5	21	37	970Hz, 0.5s/630Hz, 0.5s	86
6	22	38	500Hz -1200Hz, 3.5s on/0.5s off	85
7	23	39	2850Hz, 0.5s on/0.5s off×3/1.5s off	86
8	24	40	2850Hz 0.4s on/0.3s off	87
9	25	41	550Hz,0.7s/1000Hz,0.33s	92
10	26	42	1500Hz -2700Hz @3Hz	80
11	27	43	2400Hz	79
12	28	44	500Hz -1200Hz @0.33Hz	85
13	29	45	2400Hz-2900Hz @9Hz	84
14*	30	46	2400Hz-2900Hz @3Hz	75
15	31	47	800Hz-970Hz@3Hz	86
16*	32	48	500Hz-1200Hz,3.75s on /0.25s off	72
Pre-alarm			800Hz 1s on/1s off	80
* EN54 Compliant				

Appendix Operation Performance Data for LPCB Approved Tones

1. Operational performance Tone 14

Operational performance				
Maximum Volume dB(A)				
Angle	Horizontal Plane		Vertical Plane	
	Max 28 **V**	**Min** 20**V**	**Max** 28**V**	**Min** 20**V**
15°	82.6 dB(A)	83.7 dB(A)	79.2 dB(A)	79.3 dB(A)
45°	77.0 dB(A)	77.9 dB(A)	75.1 dB(A)	75.6 dB(A)
75°	83.7 dB(A)	84.7 dB(A)	81.3 dB(A)	81.9 dB(A)
105°	84.2 dB(A)	85.7 dB(A)	80.2 dB(A)	81.4 dB(A)
135°	78.8 dB(A)	80.4 dB(A)	76.3 dB(A)	76.5 dB(A)
165°	81.9 dB(A)	82.4 dB(A)	78.6 dB(A)	79.3 dB(A)

2. Operational performance Tone 16

Operational performance				
Maximum Volume dB(A)				
Angle	Horizontal Plane		Vertical Plane	
	Max 28**V**	**Min** 20**V**	**Max** 28**V**	**Min** 20**V**
15°	79.1 dB(A)	76.5 dB(A)	76.6 dB(A)	74.5 dB(A)
45°	75.8 dB(A)	73.2 dB(A)	74.3 dB(A)	72.6 dB(A)
75°	78.9 dB(A)	76.4 dB(A)	78.6 dB(A)	75.3 dB(A)
105°	78.8 dB(A)	75.6 dB(A)	78.3 dB(A)	76.0 dB(A)
135°	74.9 dB(A)	72.2 dB(A)	74.8 dB(A)	72.4 dB(A)
165°	77.1 dB(A)	74.7 dB(A)	77.7 dB(A)	75.3 dB(A)

This Data Sheet is subject to change without notice. Please contact GST for more information or questions.

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