# A9091T Intelligent Sounder Beacon

## I. Overview



1426a/02

0832-CPR-F2470

A9091T Intelligent Sounder Beacon can give audible and visual alarms after being connected to a DC24V power supply and a bus loop. It can be used with a bus-type fire alarm control panel. After receiving a start command given by the fire alarm control panel following an accident, the Sounder Beacon will begin to work. At this moment, the Sounder Beacon will give a dazzling visual alarm signal and a harsh audible alarm signal ,to remind the persons on the scene of the accident , the fact that a fire has occurred on the site ,quickly and necessity to take related evacuation measures, thus preventing the fire accident from becoming a major one.

The Sounder Beacon may be used to give audible alarms and visual alarms at the scenes of accidents.It is applicable to places like high-rise residential buildings, public places, hotels, amusement buildings,factories, shopping centers, hospitals, schools, office buildings and stock exchanges, and particularly to the places with a low visibility or the possibility of generation of smoke.

## II. Product features

- ✓ Meet both EN54-3 and EN54-23
- ✓ Designed with an upper cover and a lower cover and installed on an independent base, it can be installed,debugged and maintained conveniently.
- ✓ Suitable for wall and ceiling mount application
- ✓ Providing 16 tones.
- ✓ Highly efficient LED technology and specially designed lens
- ✓ Light output synchronization.

## III.Technical Specification

1. Executive Standard: EN54-3/EN54-23 Type A indoor
2. Loop input:DC24V(18-28V),≤1mA(monitoring status) ≤3mA(alarm status)
3. Power input:DC24V(20-28V),≤4mA(monitoring status) ≤130mA(alarm status)
4. Power consumption:≤3.2W@DC24V
5. Sound output:≥75dB(A) @ 1m(Tone 1).
6. Number of tones:16
7. EN54-23 coverage:C-3-8/W-2.4-6
8. Flash rate: 0.5Hz
9. Flash color: white
10. Light output synchronization:meets EN54-23
11. Protection class: IP21C
12. Operating temperature: -10℃～+55℃ Relative Humanity:≤95% (non-condensing)
13. Material Lens/Body: Flame retardant PC/ABS
14. Dimension: Φ100mm×100.5mm (with base) ,See Fig1.
15. Weight:about 270g

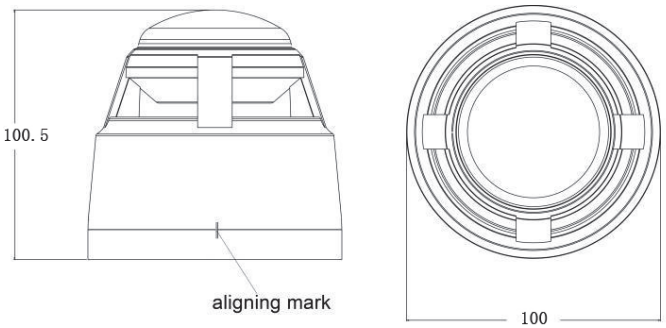



Fig.1

## Ⅳ.Use and engineering application

1.Wiring:See Fig.2.The sounder beacon is subject to a four-wire non-polarity connection:Terminals 2 and 4 are respectively connected with the terminals the DC24V power supply,terminals 1 and 3 are respectively connected with the terminals L1 and L2 of the signal bus of a compatible fire alarm control panel.

2.Coding address:The sounder beacon must be encoded address by a special coder(CODER-F900E) before the installation.Fig.3 shows the wiring diagram of the sounder beacon and coder. After wiring,press the "#"key to select "324"mode,set the coder with the coding function,then select the correct address number and press the "RUN/STOP"key to complete the address code setup.(Note:See the User's Manual of the coder for the detailed operation.)

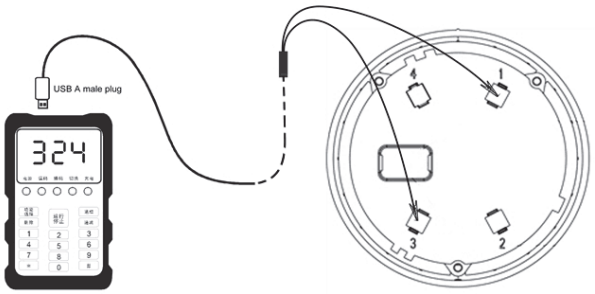



Fig.2

3.Application:Fig.3 is a schematic diagram of the connection between multiple sounder beacon with a fire alarm control panel.If synchronization is required, the end of L1 and L2 should be returned to the controller.

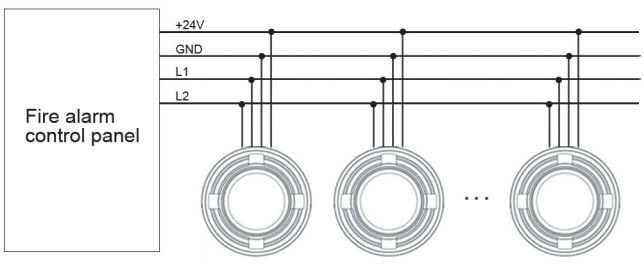


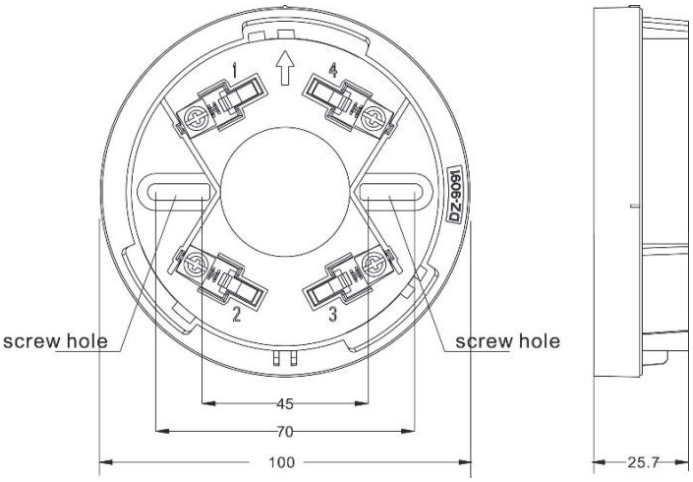

Fig.3

4.Setting tone:The tone of the sounder beacon can be set by the coder.The wiring method of setting tone is the

same as the code address. After wiring,press the “#”key to select “99A”mode,set the coder with the coding function,then select the corresponding code in the following table and press the “RUN/STOP”key to complete the tone setup.(Note:See the User’s Manual of the coder for the detailed operation.)

| Tone Table | | |
|---|---|---|
| Tone | Code | Description |
| 1 | 1 | 667Hz-2000Hz@0.22Hz |
| 2 | 2 | 970Hz |
| 3 | 3 | 800Hz/970Hz@2Hz |
| 4 | 4 | 800Hz-970Hz@1Hz |
| 5 | 5 | 970Hz 1s off/ 1s on |
| 6 | 6 | 970Hz 0.5s/ 630Hz,0.5s |
| 7 | 7 | 500Hz-1200Hz×3,3.5s on /0.5s off |
| 8 | 8 | 2840Hz,0.5s on/0.5s off×3 /1.5s off |
| 9 | 9 | 2840Hz,0.4s on,0.3s off |
| 10 | 10 | 550Hz,0.7s/1000Hz,0.33s |
| 11 | 11 | 1500Hz-2700Hz@3Hz |
| 12 | 12 | 2400Hz |
| 13 | 13 | 500Hz~1200Hz@0.33Hz |
| 14 | 14 | 2400Hz-2900Hz@9Hz |
| 15 | 15 | 2400Hz-2900Hz@3Hz |
| 16 | 16 | 500Hz-1200Hz,3.75s on/0.25s off |

## V. Installation




Definitions of terminals(non-polarity Four-wire system)
1->Loop terminal(L1/L2)
2->Power(0V/+24V)
3->Loop terminal(L2/L1)
4->Power(+24V/0V)

Fig.4 Base and wiring diagram

1. Use two M4 screws to fix the DZ-9091 base via the two elliptic screw holes(see Fig.4),then connect the bus cables with the terminal 1&3, and connect the DC24V power cables with the terminal 2&4 (2 connected with positive,and 4 with negative.1.5mm2 or above fire cable for the power input is recommended.), finally twist the main body onto the base.
2. If the sounder Beacon is required to be tamper-proof, fix it with ST2.9×5 self-tapping screws thought the tamper-proof hole (see Fig. 5)on the base.

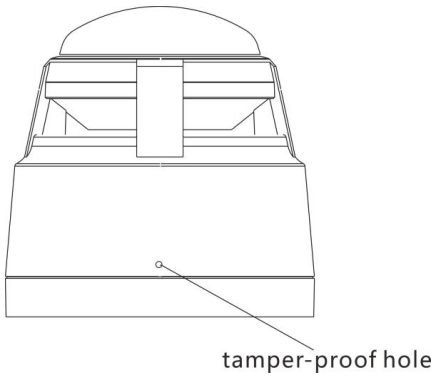



Fig. 5

## VI.Sound Level Data(EN54-3 approved)

Tone1:667Hz-2000Hz@0.22Hz,Max Volume,dB(A)@1m

| Angle | Horizontal | | Vertical | |
|---|---|---|---|---|
| Voltage | 20V | 28V | 20V | 28V |
| 15° | 77.5 | 81 | 78.1 | 81.4 |
| 45° | 77.9 | 81.1 | 78.4 | 81.7 |
| 75° | 84.4 | 88.1 | 84.8 | 88.6 |
| 105° | 84.6 | 87.7 | 84.7 | 87.9 |
| 135° | 77.3 | 80.4 | 76.6 | 80 |
| 165° | 77.9 | 81.3 | 77.5 | 81.5 |

## VII.Coverage Volume(EN54-23 approved)

| C-3-8 | | |
|---|---|---|
| X | Z | V($m^3$) |
| 8m | 3m | 150.8 |

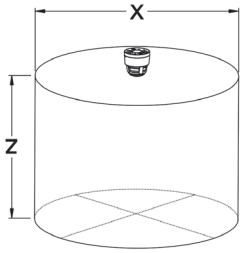



Fig. 6 Ceiling mount coverage volume

| W-2.4-6 | | | |
|---|---|---|---|
| X | Y | Z | V($m^3$) |
| 6m | 6m | 2.4m | 86.4 |

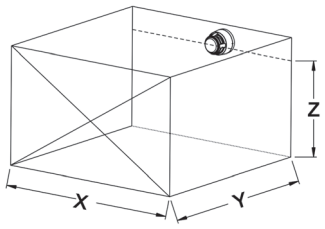



Fig. 7 Wall mount coverage volume

SHENZHEN FANHAI SANJIANG ELECTRONICS CO., LTD.
Address：3F, Guangcai Xintiandi Mansion, Nanshan Road, Nanshan District, Shenzhen, 518054, P.R.China
Tel： +86(755)86226969
Fax:：+86(755)86223939
Http://www.fhsjdz.com