

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 and bright flashing light.
- ✧ Electronically addressed. The address and tones can be modified in field.
- ✧ Tone 14 and 16 are certified by EN54-3.

Description

DI-9406 Addressable Flashing Beacon Base is installed in field to warn people for evacuation with audible and visual alarm in case of a confirmed fire.

The flashing beacon base can communicate with fire alarm control panel (FACP) through a built-in microprocessor. On receiving a start command from the FACP, the microprocessor will control the buzzer to generate the pre-set fire alarm sound and light the bright LED.

Wiring and Connection

Terminals of the flashing beacon base are shown in Fig. 1.

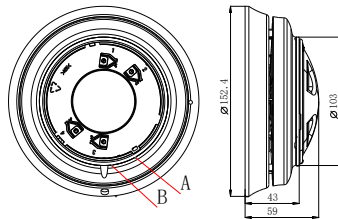


Fig. 1

Z1(1), Z2(3): Signal loop of FACP, polarity-insensitive.

Recommended Wiring

1.0mm² or above fire cable, subject to local codes.

Installation

Warning: Before installing the flashing beacon base, disconnect 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 Installation schematic of the flashing beacon base is shown in Fig. 2.
- 3 Secure the detector base (Fig. 4) with 2 tapping screws, and wire them properly. Align the orientation mark B on the flashing beacon base to mark C of detector base, and rotate the flashing beacon base clockwise to D. Refer to Fig. 3 and 4.
- 4 If the flashing beacon base comes with a cover, align the orientation mark on the cover to mark A of the flashing beacon 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.

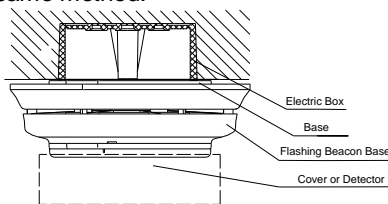


Fig. 2

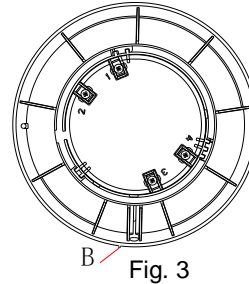


Fig. 3

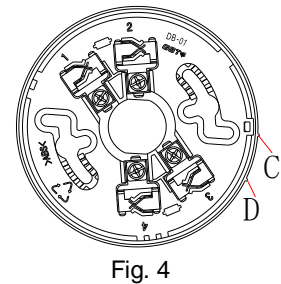


Fig. 4

Application

The flashing beacon 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 flashing beacon base has three working modes. The factory default is tone 14, mode I.

The flashing beacon base has 16 tones, the setup of which also decides the setup of working modes.

- If the flashing beacon 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 beacon base gives alarm signal when started. |
| II | Dual addresses, sharing high address with detector | The beacon base gives pre-alarm signal when starting the higher address and alarm signal when starting the lower address. |
| III | Occupying dual addresses individually | The beacon base gives pre-alarm signal when starting the lower address and alarm signal when starting the higher address. |

Operation

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

✦ Address Programming

Connect the programmer with Terminal 1 and 3 of the flashing beacon 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 number 4, 5 and 6 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 flashing beacon 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 flashing beacon bases due to their current consumption.
- Please use 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 the table (1m ahead horizontally (A weighted)) |
| Mode | Mode I, II & III. |
| Alarm tones | Optional 16 tones. Please refer to the table of tones. |
| Flash indication | Bright red flash, frequency 1Hz |
| Programming | Electronically programmed |
| Code Range | 1~242 |
| Wiring | Two-wire |
| Application Environment | Type A |
| Ingress Protection Rating | IP21C |
| Operating Temperature | -10°C~+50°C |
| Relative Humidity | ≤95%, non condensing |
| Material of Enclosure | ABS |
| Dimension | Diameter: 152.4mm Height: 43mm (without cover) |

| | |
|------------------------|------------|
| Mounting hole distance | 45mm~80mm |
| Weight | About 234g |

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 20V | Max 28V | Min 20V |
| 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 28V | Min 20V | Max 28V | Min 20V |
| 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.

Gulf Security Technology Co., Ltd.

No. 80, Changjiang East Road, QETDZ, Qinhuangdao, Hebei, P. R. China 066004

Tel: +86 (0) 335 8502434 Fax: +86 (0) 335 8502532

service.gst@fs.utc.com www.gst.com.cn