

FDS183C-EN Audible and visual fire alarm User manual

Overview

The audible and visual fire alarm FDS183C-EN can send audible and visual alarm signals when connected with a DC 24 V power supply. It can be used with bus fire alarm controller via I/O module, and also can be combined with gas fire alarm to create a gas fire alarm system. When an accident occurs, the I/O module receives the start signal from the controller and drives the audible and visual alarm to send dazzling flashing signals and harsh audible alarm signals that alert the field personnel to quickly understand the occurrence of a fire on site and take measures for evacuation as soon as possible, thus avoiding major accidents.

FDS183C-EN is designed for audible and visual alarm at the scene of accident, and can be used in public space, hotels, entertainment venues, factories, shopping malls, hospitals, schools, office buildings, stock exchanges and other places, especially the locations with low visibility or smoke production.

Features

- Top cover and base structure for easy design, installation, commissioning and maintenance
- Loud and clear alarm sound able to alert field personnel at distance
- Several ultra-bright white light-emitting diodes as the light source for striking optical display, long lifetime and low power consumption

Product appearance and dimensions (mm)

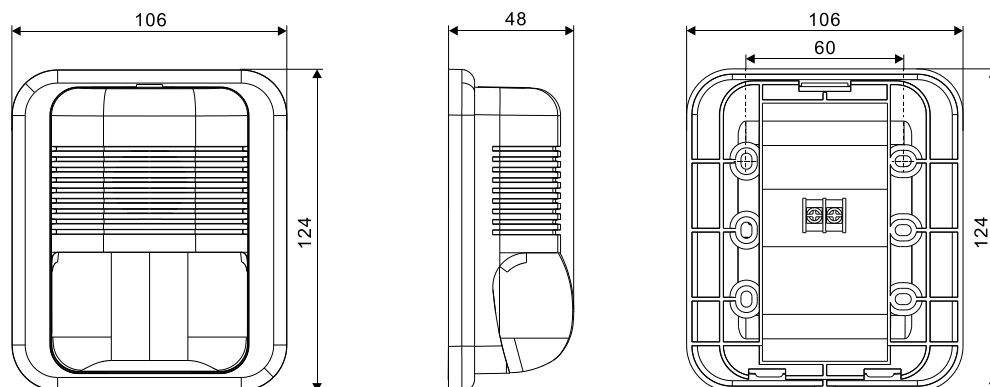


Figure 1

Installation and Commissioning

FDS183C-EN is mounted on a special base, as shown in Figure 1, and has dimensions of 106 (L) × 124 (W) × 48 (D) mm. It adopts the two-wire system for connection. The 24 V and 0 V terminals are connected with terminal 1 and terminal 2 respectively, the output of which is controlled by the I/O module. The terminals and their connection modes are shown below:

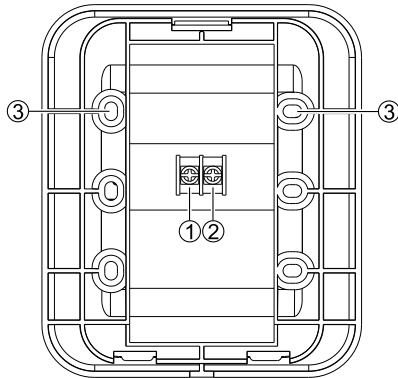


Figure 2

Item	Name	Description
1	24 V	Connect with power line
2	0 V	Connect with power line
3	Mounting holes	Any 2 of the 6 mounting holes can be selected for installation

1. Specific installation and commissioning method: As indicated in the construction drawings, use two M4 screws to run through the mounting holes as shown in Figure 2 (optional horizontal or vertical installation mode; any 2 of the 6 mounting holes can be selected), fix the supporting base to the specified position, and confirm that the base has been firmly installed.
2. Power off the controller and connect all bases correctly according to the construction drawings. **Note:** When there are many audible and visual alarms in the system, the carrying capacity of the controller should be considered. In this case, external DC 24 V auxiliary power source may be required, which is subject to the construction design drawings.
3. Check whether the type of audible and visual alarm matches the type indicated on the construction drawings; and connect the audible and visual alarm with the I/O module.
4. After the installation of all audible and visual alarms completed and confirmed, power on the controller.
5. When receiving action signals, the audible and visual alarm sends audible and visual alarm signals; and when the system is reset, the audible and visual alarm will stop to output audible and visual alarm signals.

Maintenance and testing

In accordance with GB 50166-2019 Standard for Installation and Acceptance of Automatic Fire Alarm System, the audible and visual alarm shall be tested at least once a quarter.

Fault analysis and troubleshooting

Fault	Causes	Action
Failure to send audible and visual alarm signals	Wiring error	Check whether the wiring is correct
	Internal circuit failure	Return to the factory for repair

Technical data

Standard	GB 26851 – 2011
Operating voltage	DC 24 V (Allowance range: 20 V...28 V)
Operating current	Alarm current ≤ 35 mA @ DC 24 V
Working conditions	Temperature: 0 °C...+55 °C, Relative humidity: ≤95% (40 °C, no condensing)
Flash rate	1.0 Hz...2.0 Hz
SPL	75 dB...120 dB
Modulation cycle	1.0 s...2.6 s
Wire	Two-wire system, power lines (24 V, 0 V)
Connection mode	Connect with fire alarm controller via I/O module