

Features

- ✧ Twin LED for 360° view.
- ✧ Electronically addressed in field.
- ✧ Built-in microprocessor stores 14 history data.
- ✧ Drift compensation to suit environment changing extensively.
- ✧ Self-diagnostic.
- ✧ Remote indicator output available.
- ✧ Complies with EN 54-7 standard.

Description

I-9102 Intelligent Photoelectric Smoke Detector is an addressable fire alarm device cooperating with GST intelligent fire alarm control panels to build a fire detection system. It shows fire alarm by LED indicators and transmits the fire signal to the control panel. Using infrared scattering technology, the smoke density can be detected. The detector receives very weak infrared light under normal smokeless condition. If smoke particles enter the chamber, the received light signal will increase by scattering. When smoke density reaches a pre-set level, the detector will alarm out. In order to reduce interference and power consumption, the emitting circuit works in pulse mode to prolong the life of IR LED.

Connection and Cabling

Fig.1 shows the detector bottom and Fig. 2 the base.

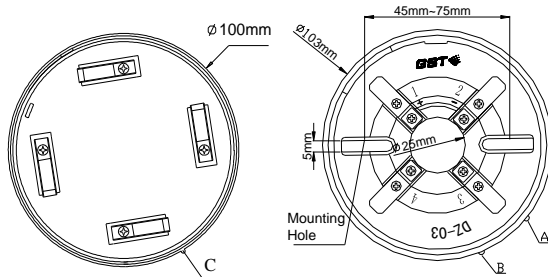


Fig. 1

Fig. 2

There are four terminals with numbers on the base.

- 1&3: Loop connection (polarity-insensitive)
- 2: Positive terminal of remote indicator
- 4: Negative terminal of remote indicator

Recommended Cabling

1.0mm² or above fire cable is recommended but subject to local codes.

Installation

A fixed installation direction is ensured by the location elements on the detector and the base. Fix the base with two tapping screws, and then align mark C on the detector with A on the base, rotate the detector to align mark C with mark B (Refer to Fig. 1 and 2 for the position of the marks), the detector will be fitted to the base.

Note: The detector shall be horizontally installed. If it has to be installed on an inclined plane, the inclination angle shall not be over 45°.



Fig. 3 shows the installation of the detector.

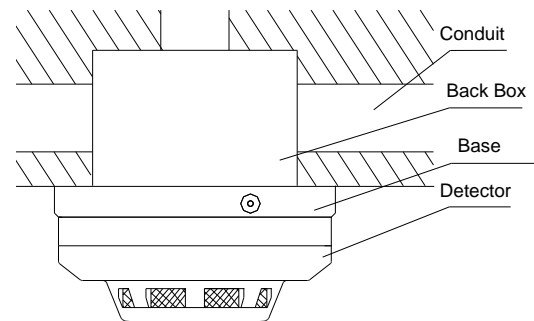


Fig. 3

Application

The detector is suitable for restaurants, hotels, office buildings, school buildings, banks, warehouses, libraries, computer rooms, power plants, etc.

The detector can be addressed in field by using P-9910B programmer. Please refer to *P-9910B Hand Held Programmer Installation and Operation Manual* for details.

Maintenance

- 1 The detector should be installed just before commission and kept well before installation, taken corresponding measures for dust-proof, damp-proof and corrosion-proof.
- 2 The dust-proof cover should not be removed until the project plunged into usage. Otherwise it may not report alarm properly.
- 3 Clean the detectors regularly, at least once a year to ensure normal operation of the system.
- 4 Maintenance should be carried out for false alarm detectors, either clean or replace the chamber if necessary. Before cleaning, notify the proper authorities that the system is under maintenance and will temporarily be out of service. Disable the automatic controls relating to the zone or system under maintenance to avoid unwanted actions.

Steps for chamber cleaning:

- a) Open the top cover of detector.
- b) Draw out the chamber slightly shaking by hand.
- c) Clean the internal of the chamber by alcohol cotton or other clean liquid swab with tweezers. Make sure not to leave any

- fiber in the chamber.
- d) Put back the chamber and the top cover.
- 5 The detector should be tested after re-installed to ensure normal operation.
- 6 Fire simulation test should be done to the detector at least every 6 months.

Specification

Operating Voltage	Loop 24V (16V~28V)
Standby Current	≤0.8mA
Alarm Current	≤5.0mA
Indicators	Red. Flashes in normal condition. Lights when fire reported.
Remote Indicator Output	Directly connect to remote indicator (built-in 5.1kΩ resistor in series. Max. output current is 5.0mA). Quiet in normal condition. Lights in alarming.
Programming Method	Electronically programming
Code Range	One address within 1~242.
Wiring	Non-polarized 2-core for loop. Polarized 2-core for remote indicator.
Ambient Temperature	-10℃~+50℃
Relative Humidity	≤95%, non condensing
Ingress Protection Rating	IP23
Material and Color of Enclosure	ABS, white (RAL 9016)
Dimensions	Diameter 100mm Height 56mm (with base)
Mounting Hole Distance	45mm~75mm
Weight	About 120g

Accessories and Tools

Model	Name	Remarks
P-9910B	Hand Held Programmer	Order separately
DZ-03	Base	Order separately

Limited Warranty

GST warrants that the product will be free of charge for repairing or replacing from defects in design, materials and workmanship during the warranty period. This warranty does not cover 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.

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

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