I-9101 Intelligent Combination Heat/Photoelectric Smoke Detector

Features

✧ Address programmable in field.
✧ Built-in MCU stores up to 14 history data.
✧ Drift compensation to suit environment changing extensively.
✧ Integrated algorithm for analyzing fire, improving the sensitivity highly.
✧ Self-diagnostic.
✧ Removable innovative sensing chamber, easy for maintenance.
✧ Reporting dirt fault for contaminated chamber.
✧ Remote indicator output available.
✧ 3 levels sensitivities programmable; Level 1 complies with EN 54-7. Fix temperature or rate of rise programmable, rate of rise mode complies with EN 54-5.

Description

I-9101 Intelligent Combination Heat/Photoelectric Smoke Detector is consisted of smoke sensing and semi-conductor temperature sensing parts in processing and circuitry. This detector has the advantages of both photoelectric detector and rate of rise and fixed temperature heat detector. Just because of the combination technology of smoke detector and heat detector, it overcomes the non-sensitivity to dark smoke particles of ordinary scattering type photoelectric detectors. It can also pick up fire with obvious rise of temperature such as alcohol fire, thus extending the application range.

Connection and Cabling

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

Fig. 1   Fig. 2
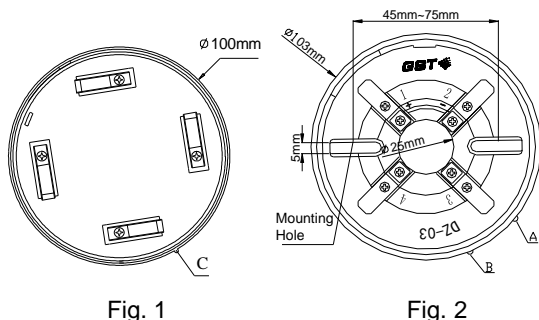
There are four terminals with numbers on the base.

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

Recommended Cabling

$1.0mm^2$ or above fire cable for all the wires, laid out through metal conduit or flame retardant conduit, 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.
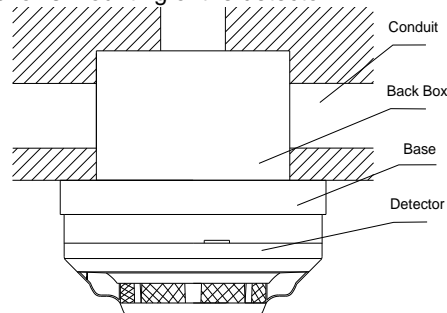
Fig. 3 shows mounting of the detector.

Fig. 3

Applications

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.

In power-on state of the programmer, input unlocking password and press *Clear* to unlock. Press *Function*, then press "3", the screen shows "-" at the last digit.

Input corresponding sensitivity or parameter and press *Program*, the screen will show a "P", the corresponding sensitivity or parameter is programmed. Press *Clear* to clear the "P". Input locking password and press *Clear* to return.

Rate of rise and level 1 is defaulted.

Parameters set using programmer

Input Number	Smoke Sensitivity	Heat Sensitive
1	Level 1	Rate of rise
2	Level 2	Rate of rise
3	Level 3	Rate of rise
11	Level 1	Fixed temperature
12	Level 2	Fixed temperature
13	Level 3	Fixed temperature

Specification

Operating Voltage	Loop 24V (16V~28V)
Standby Current	≤0.8mA
Alarm Current	≤5.0mA
Alarm Indicator	Red (flashes in normal and illuminates in alarm)
Remote Indicator Output	Directly connecting with indicator (built-in 5.1kΩ resistor, maximum output current is 5.0mA). Quiet in normal condition. Illuminates steadily in alarm.
Action Temperature	62℃
Class	A2R
Programming Method	Electronically programming
Code Range	one address within 1～242
Wiring	Polarity-insensitive 2-core for detection zone cable. Polarity-sensitive 2-core for remote indicator.
Ingress Protection Rating	IP22
Environment Temperature	−10℃～+50℃
Relative Humidity	≤95%, non condensing
Material of Enclosure	ABS
Dimensions	Diameter: 100mm Height: 56mm (with base)
Mounting Hole Distance	45mm~75mm
Weight	About 120g

Maintenance

✧ The detector should be installed just before commissioning and kept well before installation, taken corresponding measures for dust-proof, damp-proof and corrosion-proof.

✧ The dust cover cannot be removed until the project has been plunged into usage, otherwise it cannot alarm normally.

✧ The detector should be cleaned at least once a year to ensure normal operation of the system.

✧ If nuisance alarms are often found of the detector on site, the sensing chamber should be cleaned and replaced when necessary.

✧ Before cleaning, notify the proper authorities that the system is undergoing maintenance and will temporarily be out of service. Disable the zone or system undergoing maintenance to avoid unwanted alarms.

✧ After cleaning, install the detector again, and test after re-installing. Notify the proper authorities when the system is back in service.

✧ Fire simulation test should be made to the detector once half a year.

Accessories and Tools

Model	Name	Remark
P-9910B	Hand Held Programmer	Order separately
DZ-03	Base	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 of charge for repairing or removing from defects in design, materials and workmanship during the warranty period. This warranty doesn't 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.