



# I-9103(UL) Intelligent Rate of Rise and Fixed Temperature Heat Detector

## Features

- ◇ Electronically addressed. The address is modified in field.
- ◇ Built-in microprocessor can store 14 history records
- ◇ Identification of defective detectors.
- ◇ Rate of rise and fixed temperature alarm mode.
- ◇ Standard: UL 521.

## Description

I-9103(UL) Intelligent Rate of Rise and Fixed Temperature Heat Detector (the detector) can form fire alarm system connecting with fire alarm control panel from GST. The detector illuminates fire LED to indicate alarm status and transmits fire signal to the control panel.

The detector uses a thermistor as its sensor, whose output signal is input into its microprocessor after voltage transformation, and the microprocessor processes the signal by intelligent arithmetic. When the microprocessor checks fire signal, it sends the signal to the control panel and illuminates the fire LED through the control panel.

## Connection and Wiring

The orientation base is shown in Fig. 2.

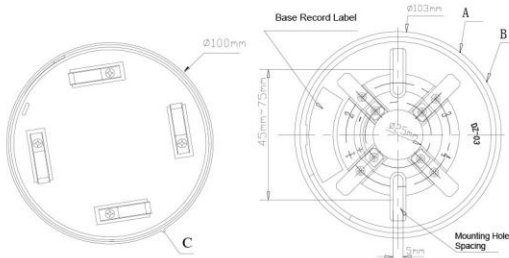


Fig. 1

Fig. 2

There are four conducting piece on the orientation base, each carrying a terminal with numbers. The detector loop in the conduit can be connected with any two diagonal conducting pieces (polarity-insensitive). The other two are used to fix the detector accessorialy.

### Recommended Wiring

1.0mm<sup>2</sup> or above fire cable for detector loop, subject to local codes.

**UL Listed Compatible Control Panel:** GST-M200

## Installation

There are marks on the base and detector bottom to ensure the only installation position. First fix the base using two tapping screws. Then align mark C to mark A, then rotate the detector clockwise to mark B. (Marks are shown as Fig. 1 and Fig. 2.)



Mounting of the detector is shown in Fig. 3.

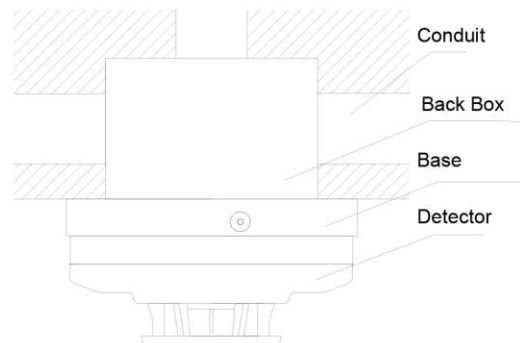


Fig. 3

## Application

The detector is especially applicable to places where fire occurs with highly rise temperature. Used together with smoke detectors, it can detect fire with more reliability to reduce losses.

Address can be programmed through programmer in field. Refer to the P-9910B Hand Held Programmer Installation and Operation Manual for further 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 cover cannot be removed until the project has been plunged into usage.
3. Clean the detector at least once a year to ensure normal operation.
4. 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.
5. The detector should be tested again after cleaning and reinstallation.
6. Fire simulation test should be made to the detector

at least once half a year.

## Testing

Before testing, 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. All detectors must be tested after installation and periodically thereafter. Testing methods must satisfy the Authority Having Jurisdiction (AHJ).

Detectors offer maximum performance when tested and maintained in compliance with NFPA 72. The detector can be tested in the following way:

A hair dryer of 1000-1500 watts should be used to test the thermistor. Direct the heat toward the thermistor, holding the heat source approximately 12 inches from the detector in order to avoid damaging the plastic housing. The detector will reset only after it has had sufficient time to cool. A detector that fails the test should be cleaned and retested. If the detector fails after cleaning, it must be replaced. When testing is complete, restore the system to normal operation and notify the proper authorities that the system is back in operation.

## Cautions

1. The detector base should be installed securely and the leads connected reliably.
2. The fire LED should face the main entrance where it's convenient for personnel to observe.
3. In maintenance, be careful to avoid damage to the detector.
4. The detector is not suitable for places where smoldering fire is possible to occur.

## Accessories and Tools

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

## Specification

Operating Voltage	Loop 24V
Standby Current	≤0.8mA
Alarm Current	≤2.0mA
Fire LED	Red (flashes when polling, constantly lights when alarming)
Detection Angle	≤45°
Sensitivity	Action Temperature :135 °F (57°C) Response Velocity :15 °F /min (8.3°C/min)
Programming Mode	Electronically addressed
Programming Range	Occupies one address within 1~242
Wiring	Two-wire, polarity insensitive
Ingress Protection Rating	IP33
Ambient Temperature	32 °F (0 °C) ~ 100 °F (+37.8 °C) (UL 521)
Relative Humidity	≤95%, non condensing
Material and Color of Enclosure	ABS, white (RAL 9010)
Dimensions	Diameter: 100mm Height: 45mm (without base)
Mounting Hole Spacing	45mm~75mm
Weight	About 115g

## 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.