Features

✧ Twin LED for 360° view.

✧ Built-in microprocessor samples and collects data in real time.

✧ Rate of rise and fixed temperature alarm modes.

✧ Remote indicator output available.

✧ Complies with EN 54-5 standard.

Description

C-9103 Conventional Rate of Rise and Fixed Temperature Heat Detector is non-addressable. With built-in microprocessor, it works stably with reliable fixed fire judging program. Used together with an active end of line unit (AEOL), it can connect with compatible control panels to process fire alarm signals. It transmits fire signal to fire alarm control panel or interface module by changing its own current and shows the fire alarm by LED indicator until it's reset.

Connection & Cabling

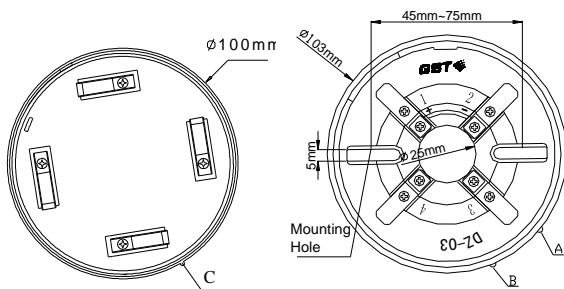Fig.1 shows the detector bottom and Fig. 2 the base.

Fig. 1   Fig. 2

There are four terminals with numbers on the base.

1: Detection zone positive IN

2: Detection zone positive OUT

3: Detection zone negative IN and OUT

2: Positive terminal of remote indicator

4: Negative terminal of remote indicator

Recommended Cabling

1.0mm^2 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 45º .

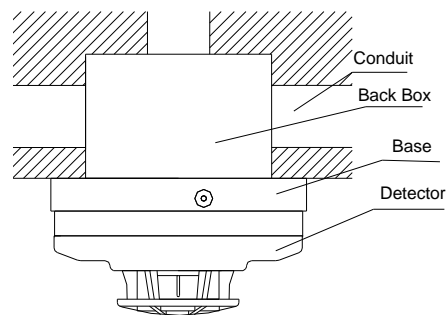Fig. 3 shows the installation of the detector.

Fig. 3

Application

Warning: The detector should be connected with fire alarm control panel or other devices with current limit function. Otherwise the detector may be damaged by too heavy alarm current.

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

✧ When the detector is connected with compatible fire alarm control panel in series, if a P-9907 AEOL is connected to the end of loop, a 1N5819 Diode should be connected to the detector base.

➢ Used as the detector base, the AEOL is to install a conventional detector on it. The system connection is shown in Fig. 4.
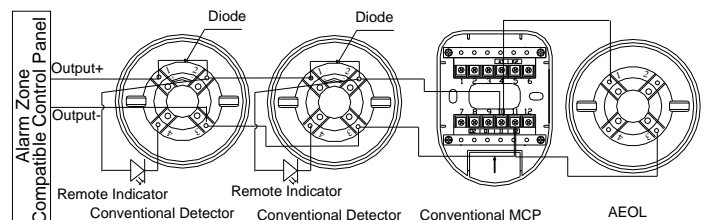

Fig. 4

➢ When the AEOL is not used as the detector base, a cover should be put. The system connection is shown in Fig. 5.
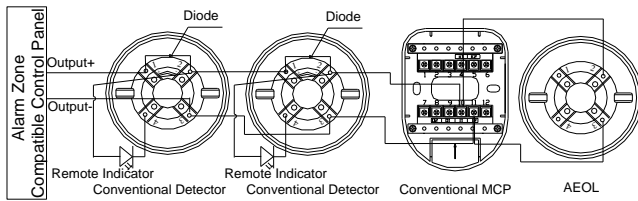
Fig. 5

✧ When the detector is connected with compatible fire alarm control panel, with an end of line resistor connected to the end of loop, then no diode is connected to the detector base. The system composition is shown in Fig. 6.
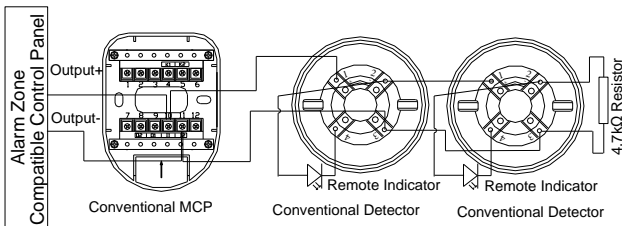

Fig. 6

Maximum 15 detectors can be connected in one zone. Cooperating with end of line device, the compatible panel can monitor the cable for open circuit and short circuit. Panel will report if any detector is removed. With Active End of Line unit (AEOL), the functioning of other device will not be affected by the detector removal.

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 should not be removed until the project has been plunged into usage. Otherwise it may not report alarm normally.

3 Fire simulation test should be done to the detector at least every 6 months.

Specification

Operating Voltage	24VDC(12VDC~28VDC)
Standby Current	≤60μ A
Alarm Current	10mA≤I≤30mA
Indicators	Red. Quiet in normal condition. Illuminates steadily in alarm.
Remote indication output	Directly connecting with remote indicator (built-in 2kΩ resistor in series,). Quiet in normal condition. Illuminates steadily in alarm.
Maximum Ripple Voltage	4V (peak-to- peak value)
Alarm Clear	Instantaneous Power-off (5s Max., 2.5VDC Max.)
Power up Time	≤10s
Action Temperature	58℃
Class	A1R
Wiring	Polarized 2-core for detection zone cable. Polarized 2-core for remote indicator.
Operating Temperature	−10℃~+50℃
Relative Humidity	≤95%, non condensing
Ingress Protection Rating	IP33
Material and Color of Enclosure	ABS, white (RAL 9016)
Dimensions	Diameter: 100mm Height: 58mm (with base)
Mounting Hole Distance	45mm~75mm
Weight	About 120g

Accessories and Tools

Model	Name	Remarks
P-9907	Active End of Line Unit	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.