

Features

- ✧ Twin LED for 360° view.
- ✧ Built-in microprocessor selects and processes data in real time.
- ✧ Rate of rise and fixed temperature alarm modes.
- ✧ Remote indicator output available.
- ✧ Designed to comply with EN 54-5 standard.

Description

C-9103(Ex) Explosion Proof Rate of Rise and Fixed Temperature Heat Detector is non-addressable. Built-in microprocessor, it works stably with reliable fixed fire judging program, applicable to Zone I and Zone II in petrol and chemistry industries. Used together with I-9332 interface, it can be connected with compatible FACP (fire alarm control panel) to process fire alarm signals. When checking the fire signal, the detector transmits it to the interface by changing its own current and shows fire alarm condition by lighting indicator until it's reset.

Connection and Cabling

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

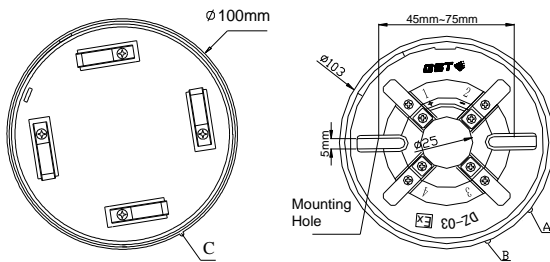


Fig. 1

Fig. 2

There are four terminals with numbers on the base.

- 1: 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

1.0mm² or above fire cable, the capacitance distributed among cables should not be over 0.04μF, and the inductance distributed should not be over 4.3mH. 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 the installation of the detector.

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°.

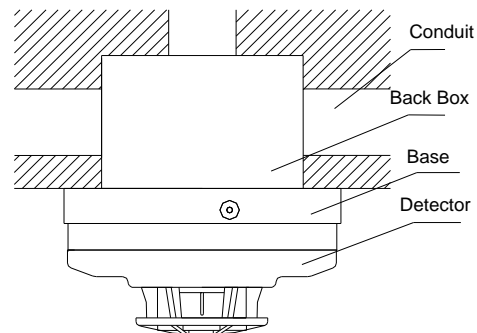


Fig. 3

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 intrinsically safe fire system is made up of C-9103 (Ex) detector, FACP, I-9332 Interface, C-9101(Ex) Explosion Proof Combination Heat/Photoelectric Smoke Detector, C-9201 (Ex) Manual call point and 4.7kΩ end-of-line resistor. Fig. 4 shows the system connection.

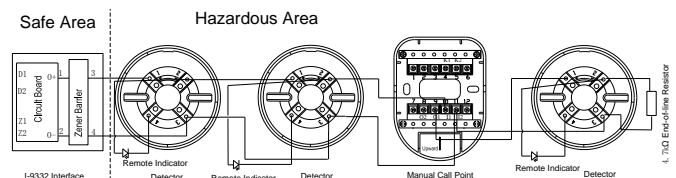


Fig. 4

NOTES:

1. The interface can connect up to 10 explosion proof products.
2. During maintenance, products passing the explosion-proof test should not be replaced and parts and structure affecting explosion-proof functions should not be modified.

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

Specification

Operating Voltage	24VDC(12VDC~28VDC)
Standby Current	$\leq 60\mu\text{A}$
Alarm Current	$10\text{mA} \leq I \leq 30\text{mA}$
Indicators	Red. Quiet in normal condition. Illuminates steadily in alarm.
Ex Marking	ExibIICT6
Remote Indication output	Directly connecting with remote indicator (built-in $2\text{k}\Omega$ 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	$\leq 10\text{s}$
Action Temperature	58°C
Detector Type	A1R
Wiring	Polarized 2-core for detection zone cable. Polarized 2-core for remote indicator.
Zener barrier parameter	$U_0 = 28\text{V}$, $I_0 = 93\text{mA}$
Ingress Protection Rating	IP33
Ambient Temperature	$-10^{\circ}\text{C} \sim +50^{\circ}\text{C}$
Relative Humidity	$\leq 95\%$, non condensing
Material and Color of Enclosure	ABS (Surface resistance $\leq 10^9\Omega$), white (RAL 9016)
Dimension	Diameter: 100mm High: 58mm (with base)
Mounting Hole Distance	45mm~75mm
Weight	About 120g

Tools and Accessories

Model	Name	Remark
I-9332	Interface	Order Separately
DZ-03(Ex)	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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