

## Features

- ◇ Using excellent UV sensor.
- ◇ High sensitivity, reliable performance, dust-proof, damp-proof and corrosion-proof.

## Description

C-9104 Conventional Ultraviolet Flame Detector detects fire by analyzing ultraviolet radiation of material flaming. It's applicable to places where open fire, fire with intense flame radiation and fire without smoldering stage take place easily, as well as places where quick response to a fire is required. Used together with other detectors, it can sense fire in time to minimize losses as much as possible.

The detector is DC powered, which powers signal processing circuit after voltage stabilization, the UV sensor needs 300V voltage or so, which is provided after boosted by transformer. When there is ultraviolet light on the sensor, it discharges due to photoelectric effect, and the strength of discharge is in proportion with the intensity of UV light. Signal processing circuit analyzes and processes its output signal, then compares with alarm threshold and outputs alarm signals. The alarming mode of the detector is current output; it's shorted by internal 680Ω after alarming.

## Connection & Cabling

Fig. 1 shows the structure of the detector and Fig. 2 the base (unit: mm).

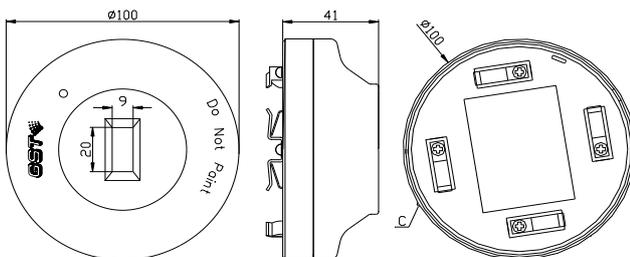


Fig. 1

Thread the cable through the conduit of back box and base; fix the base on the back box. There are four terminals with numbers on the base. "1" and "3" to power supply, "1" is anode and "3" is cathode, "2" to next detector.



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.

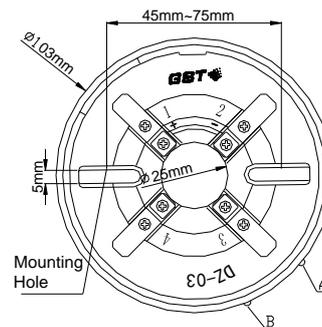


Fig. 2

## Recommended Cabling

1.0mm<sup>2</sup> or above copper-core cable.

## Installation

**Warning:** Before installation, please disconnect power from the loop and verify that all the bases are securely installed and wiring is correct at each base.

**Power up after all the detectors are installed.**

Check the enclosure and labels before installation, ensuring there is not nicks and distortion.

Fig. 3 shows the mounting of the detector.

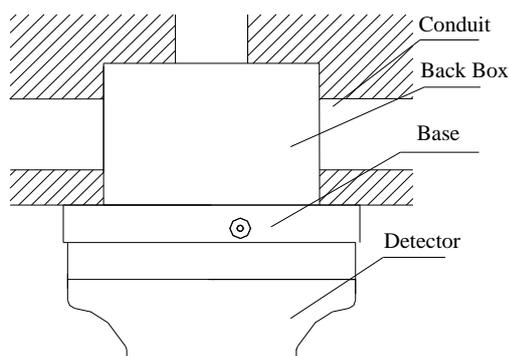


Fig. 3

## Maintenance

The detector should be installed just before commission and kept well before installation. Corresponding measures should be taken for dust-proof, damp-proof and corrosion-proof. Clean the detector and do fire alarm tests regularly. Repair the fault in time.

## Cautions

The detector should be handled with care wherever it is moved, avoiding collision, squeezing, and friction.

The detector is not suitable for the following places.

- ✧ Where flameless fires are expected.
- ✧ Where thick smoke spreads before flames.
- ✧ Places where the "view" of the detector is easy to be obscured.
- ✧ Where the sun can directly or indirectly shine the detector.
- ✧ Where there are strong ultraviolet light source, such as halogen and tungsten.
- ✧ Where there is open flame, welding operation, X rays and arc and spark etc.

## Specification

|                                 |                                                                                                             |
|---------------------------------|-------------------------------------------------------------------------------------------------------------|
| Operating Voltage               | 24VDC(16VDC~28VDC)                                                                                          |
| Standby Current                 | ≤1.6mA                                                                                                      |
| Alarm Current                   | ≤38mA                                                                                                       |
| Sensitivity                     | Level I                                                                                                     |
| Indicator                       | Red. Flash in standby condition. Illuminates steadily in alarm.                                             |
| Detection Angle                 | ≤80°                                                                                                        |
| Monitoring Area                 | $S=(h \times \text{tg}\alpha)^2\pi=2.21h^2$<br>h: Height from the detector to the ground. $\alpha=40^\circ$ |
| Operating Temperature           | -20°C~+50°C                                                                                                 |
| Relative Humidity               | ≤95%, non condensing                                                                                        |
| Dimension                       | Diameter: 103mm<br>Height: 53.5mm (with base)<br>Diameter: 100mm<br>Height: 41mm (without base)             |
| Material and Color of Enclosure | ABS, white (RAL 9016)                                                                                       |
| Weight                          | About 112g                                                                                                  |
| Mounting Hole Distance          | 45mm~75mm                                                                                                   |

## Accessories and Tools

| Model | Name                 | Remark           |
|-------|----------------------|------------------|
| DZ-03 | Common Detector Base | Order separately |
| DZ-03 | No Diode 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 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.

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

### Gulf Security Technology Co., Ltd.

No. 80, Changjiang East Road, QETDZ, Qinhuangdao, Hebei, P. R. China 066004

Tel: +86 (0) 335 8502434 Fax: +86 (0) 335 8502532

[service.gst@fs.utc.com](mailto:service.gst@fs.utc.com) [www.gst.com.cn](http://www.gst.com.cn)