# GST
## Global System Technology PLC
*The Intelligent Solution*

## Intelligent Ultraviolet Flame Detector I-9104



The integral microprocessor analyses the signal according to the factors such as signal strength and rate of increase, then confirms these pattern with the pre-programmed fire scenarios and flame patterns for a faster and safer response.

Secure and speedy communication through the on board processor enables the detector to make its own decision, resulting in greater automation. The sensor and the panels utilized fuzzy logic providing an almost limitless cause and effect scenarios.

Electronic addressing can be done through Handhold Programming device (P-9910), purchased separately.

### Features:

1. Built in 8 bit microprocessor
2. Not sensitive to sunlight
3. Dust /corrosion/humidity resistante
4. Secure and speedy communication
5. Self diagnosis and history log
6. Standard calibration set to detect a 3cm flame at 6metres
7. Effective range up to 12 metres
8. 110º effective detection dispersion angle
9. Electronic addressing
10. Twin LED for 360º vision

### Description:

The I-9104 Intelligent Ultraviolet Flame Detector is fast and capable to detecting the ultraviolet (UV) rays emitted by a burning substance, used in high hazard applications such as petrochemical plants, munitions factories and other areas where flammable or explosive liquids or solids are handled or stored.

The I-9104 sensor provides an ultraviolet photosensitive tube, with qualities of highly sensitive, reliable, dust-resistant, corrosion-proof and moisture-resistant. The sensor is not sensitive to sunlight, dust, oil, fume, and humidity. Set as a standard calibration to detect a 3cm flame at a distance of 6 meters with a total effective range of 12 meters. Has unique electronic addressing to provide specific location, information and monitor condition.

### Technical Specifications

- Protection rating: IP 32
- Operating voltage: 24Vdc Loop
- Operating Current:
  Standby current 1.5mA
  Alarm Current 10mA
- Operating temperature:-10°C to +50°C
- Relative humidity: 95%
- Application: Indoor use
- Detection angle: 80 degree
- Programmable sensitivity: 3 levels
- Visual Indicator: LED, Red ( lit steady when alarm, 3 sec interval blinking at normal state)
- Material and colour: ABS, off-white
- Wiring: 1 pair non polarized
- Dimensions: diameter 10cm; height 5cm

# Intelligent Ultraviolet Flame Detector I-9104

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## Mounting Standard Base

The detector is mounted using our standard base DZ-03.Multiple-direction design allows easy direction adjustment. Suitable for surface mount only, mount onto standard one gang electrical box with a mounting hole that have 65mm spacing.



CONCRETE PAD OR HOLDING PAD — EMBEDDED BOX — SCREW — HOLE — STANDARD DETECTOR BASE
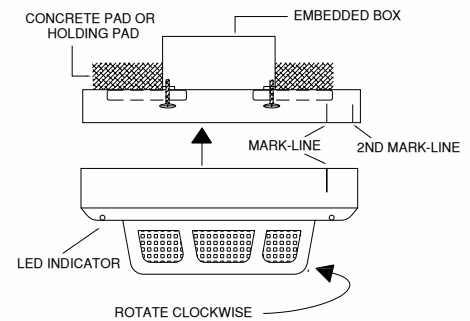
BASE MOUNTING
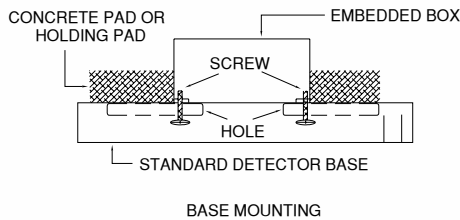
## Wiring and Connection

Connect the wires to the required terminal according to the wiring diagram. Terminal 1 and 3 is for loop bus. The cable must be fire rated type and the size depends on the distance and application. Minimum size gauge 1.0mm².



FROM CONTROL PANEL 1 PAIR FIRE CABLE — TERMINALS — MOUNTING — TO NEXT DEVICE 1 PAIR FIRE CABLE
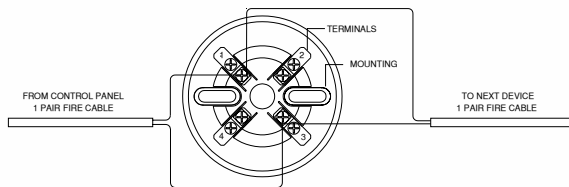
## Detector Installation

The Intelligent sensor should be installed in compliance with all local codes having a jurisdiction in your area or NFPA 72 National Fire Alarm Code, NFPA 70 National Electrical Code, BS 5389 and EN54. Before installation verify the proper wiring and base are firmly mounted to prevent detector damage before the installation. Point the detector in the base by the mark-line and secure the detector in that position by rotating it clockwise until it reaches the next mark line.



CONCRETE PAD OR HOLDING PAD — EMBEDDED BOX — MARK-LINE — 2ND MARK-LINE — LED INDICATOR — ROTATE CLOCKWISE

## Programming

The address of the detector and sensitivity can be programmed using GST handheld programmer (P-9910), purchased separately. Connect the two wires of the handheld programmer to any two opposite terminals of the detector.



FIELD DEVICE PROGRAMMER

DETECTOR TERMINAL
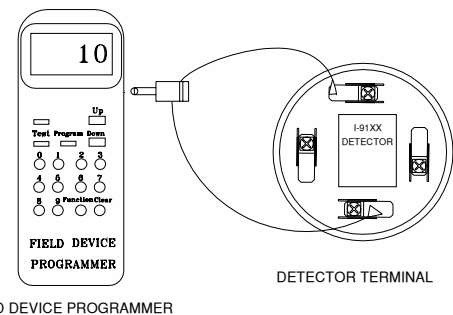
## Selection of compatible Control Panels

Compatible with all GST Intelligent Fire Alarm Panels GST 100, GST 200, GST 5000, GST 9000.

## Ordering Information:

| Part No | Description | Weight /Kg | Pack Qty per Box |
|---|---|---|---|
| I-9104 | Intelligent Ultraviolet Flame Detector | 0.123 | 120 |
| DZ-03 | Standard Detector Base | 0.050 | 360 |

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Note: Specifications are subject to change without notice.