

**GST** 



**GST Headquarters**



**GST Production Base**

# Company Profile

GST , a high tech company, is specialising in R&D, manufacturing, marketing and technical service of Fire Alarm Systems.

GST manufactures over 6 million detectors and modules, over 30,000 control panels per year, being one of the largest independent fire detection manufacturing companies in the world.

All our main devices are manufactured using robotic controlled pick and place machines and surface mount technology, in strict conformity with ISO9001 and ISO10012.1.

Over the years we have successfully gained international recognition and approval, such as LPCB, UL and CE. GST products have been sold in more than 50 countries and regions covering Europe, Asia, Africa and America.







# Certification and Approval





## Index

Digital Intelligent Devices	1- 4
Intelligent Fire Alarm System	5-21
Innovative Conventional Devices	22-24
Conventional Fire Alarm System	25-33
Gas Extinguishing System	34-36
Fire Telephone System	37-39
System Schematics	40-45



# Digital Intelligent Devices



## Digital Intelligent Optical Smoke Detector

- Advanced digital communication
- Built in 8 bit microprocessor
- Algorithm maps for faster response and false alarm rejection
- Secure and speedy communication
- Intelligent drift compensation
- Self diagnosis and history log
- Electronic addressing
- Duplicated address report
- Sensing chamber for exceptional dust proof ability and LED for 360° vision
- Built in remote indicator output
- Unique low profile design
- EN54 compliance

### Technical Specifications

- Standard: EN54-part7
- Operating Voltage: 24VDC Loop
- Operating Current:
  - Standby Current 0.6mA
  - Alarm Current 1.2mA
- Operating Environment:
  - Temperature: -10 ~+50°C
  - Relative Humidity: 95%
- Field Programmable Sensitivity: 0.10dB/m ~ 0.25dB/m-3 levels
- Dimensions: Diameter 100mm, Height 44.5mm

DI-9102



## Digital Intelligent Dual Heat Detector

- Built in 8 bit microprocessor
- Advanced digital communication
- Secure and speedy communication
- Self diagnosis and history log
- Electronic addressing
- Duplicated address report
- LED for 360° vision
- Built in remote indicator output
- Unique low profile design
- Fixed temperature response is adjustable via hand held programming tool
- EN54 compliance

### Technical Specifications

- Standard: EN54-part5
- Operating Voltage: 24VDC Loop
- Operating Current:
  - Standby Current 0.6mA
  - Alarm Current 1.2mA
- Operating Environment:
  - Temperature: -10 ~+50°C
  - Relative Humidity: 95%
- Detector Class: A1S, A1R, A2S, A2R, BS, BR
- Dimensions: Diameter 100mm, Height 41mm

DI-9103



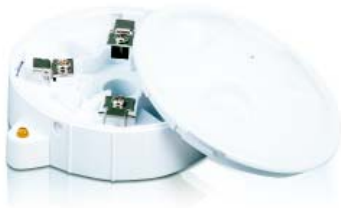


### Digital Intelligent Multi Sensor

- Combined all the features of DI-9102 Optical and the DI-9103 Heat detector
- Advanced digital communication
- Electronic addressing
- LED for 360° vision
- Sensing chamber for exceptional dust proof ability
- Ideal alternative to Ionization detector
- Low profile design

### Technical Specifications

- Standard: EN54-part 5, part 6 and Part 7
- Operating Voltage: 24VDC Loop
- Operating Current:
  - Standby Current 0.6mA
  - Alarm Current 1.5mA
- Operating Environment:
  - Temperature: -10 ~+50°C
  - Relative Humidity: 95%
- Field Programmable Sensitivity: 0.10dB/m~0.56dB/m-3 levels
- Dimensions: Diameter 100mm, Height 44.5mm



### Base Mount Isolator

- In the event of a short circuit isolates faulty parts of the loop
- Automatically resetting once the fault has cleared
- Compatible with digital range of detector
- Can be used standalone with cover or in stead of standard base
- LED status indicator

### Technical Specifications

- Operating Voltage: 24VDC
- Active Current: 1A
- Operating Environment:
  - Temperature: -10 ~+50°C
  - Relative Humidity: 95%
- Application: Indoor use
- Visual Indicator: Yellow LED (lit steady when alarm, off normal state)
- Dimensions: Diameter 100mm, Height 37.5mm (with cover)



### Standard Base

- Standard base for digital DI/DC range of detectors
- No electronics, safe on the time of installation

DI-9101

DC-9504

DB-01



DI-9204



### Digital Manual Call Point

- Re-settable (non-breaking glass) via special key
- Advanced digital communication
- Electronically addressing
- Friendly installation and test
- Wiring before termination
- Semi-flush mount installation
- Optional back-box for surface mount
- Stylish pleasing design

### Technical Specifications

- Protection Rating: IP 30
- Operating Voltage: 24VDC Loop
- Operating Current:
  - Standby Current 0.6mA
  - Alarm Current 1.2mA
- Operating Environment:
  - Temperature: -10 ~+50°C
  - Relative Humidity: 95%
- Application: Indoor use
- Dimensions: 87 x 87.5 x 58 mm, Surface Mount  
87 x 87 x 23.5 mm, Flush Mount

DI-9405



### Digital Sounder Base

- Loop powered sounder
- Low power consumption
- Compatible with digital range of detectors
- Wall mounted (stand alone with cover) or ceiling mounting
- Electronically addressing
- Multi mode can be configured as single address for evacuation, dual address for alert/evacuation of virtual address to operate with one detector plus programmable evacuation
- Cable-free application

### Technical Specifications

- Operating Voltage: 24VDC Loop
- Operating Current:
  - Standby Current 1mA
  - Action Current 4mA
- Loop capacity: 50 pieces per loop
- Sound Output: 85dB @ 1metre
- Dimension: Diameter 148mm, Height 34.4mm(without cover), 49mm(with cover)





# Intelligent Fire Alarm System



## Intelligent Optical Smoke Detector

- Aesthetically pleasing low profile design
- 8 Bit intelligent processor with A/D converter
- Built in algorithm maps for false alarm rejection
- Electronically addressed
- Twin LED's for 360° degree vision
- With Remote Indicator output
- Sensitivity adjustable via hand held programming tool
- Removable optical chamber for easy cleaning and maintenance



## Technical Specifications

- Operating voltage: 24VDC Loop
- Operating current:
  - Standby current: 0.8mA
  - Alarm current 2mA (5mA for RI)
- Operating Environment:
  - Temperature: -10 ~+50°C
  - Relative Humidity: 95%
- Dimensions: Diameter 100mm, Height 50mm

I-9102



## Intelligent Dual Heat Detector

- Fixed Temperature and Rate of Rise Heat Detection
- Aesthetically pleasing low profile design
- 8 Bit intelligent processor with A/D converter
- Electronically addressed
- With Remote Indicator output
- Detector class: A1R
- Twin LED's for 360 degree vision



## Technical Specifications

- Operating voltage: 24VDC Loop
- Operating current:
  - Standby current 0.8mA
  - Alarm current 2mA (5mA for RI)
- Operating Environment:
  - Temperature: -10 ~+50°C
  - Relative Humidity: 95%
- Detector class: A1R
- Dimensions: Diameter 100mm, Height 50mm

I-9103



### Intelligent Multi Sensor

- Combining all the features of the I-9102 Optical and the I-9103 Dual Heat Detector to provide the ultimate cover for life safety systems
- Ideal alternative to Ionisation detectors
- Adjustable smoke detection sensitivity by handhold programmer

### Technical Specifications

- Operating voltage: 24VDC Loop
- Operating current:
  - Standby current 0.8mA
  - Alarm current 2mA
- Operating Environment:
  - Temperature: -10 ~+50°C
  - Relative Humidity: 95%
- Field Programmable Sensitivity: 0.1dB/m~0.56dB/m-3 levels
- Dimensions: Diameter 100mm, Height 50mm

I-9101



### Intelligent Ultraviolet Flame Detector

- Sensitive Ultraviolet sensor that detects the UV rays produced by a flame
- Not effected by sunlight.
- Aesthetically pleasing Low profile design
- Dust / corrosion / humidity resistant
- Electronically addressed
- Standard calibration set to detect a 3cm flame at 6 metres
- Effective range 12 metres

### Technical Specifications

- Operating voltage: 24VDC Loop
- Operating current:
  - Standby current: 1.5mA
  - Alarm current 10mA
- Operating Environment:
  - Temperature: -10 ~+50°C
  - Relative Humidity: 95%
- Detection Angle: 80 Degree
- Dimensions: Diameter: 100mm Height: 50mm

I-9104



### Standard Detector Base

- Base for termination and fixing of detectors
- Non-electronic component
- Common base for GST I-9101 / 2 / 3 / 4

DZ-03



## Intelligent Reflective Beam Detector

- Range 8 -100 Metres
- 2 selectable levels of sensitivity adjustment
- Ideal for Atriums, Warehouses, Shopping Centres, Airport Terminals, etc.
- Simple and cost effective to install of transmitter and reflective 'honey comb' mirror
- Quick and easy to set up and align with visual Green LED indication that flashes faster or slower subject to signal strength. Replace the cover and the detector will self calibrate to the required level.

I-9105R

## Technical Specifications

- Operating voltage: 24VDC Loop, 24VDC Power Supply
- Operating current (power supply):  
Power current:  
Commission current 20mA  
Standby current 8mA  
Alarm current 12mA  
Loop current 20mA
- Detection Range: Length from 8 to 100 metres, width 7 metres in both sides
- Wiring: Non-polarized two-core 24VDC  
Non-polarized two-core detection loop
- Operating Environment:  
Temperature: -10 ~+50°C  
Relative Humidity: 95%
- Dimensions: 206mm x 95mm x 95mm



## Addressable Combustible Gas Detector

- Available for LPG, Natural Gas and Coal Gas (please specify at time of order)
- Built-in relay contacts for control of Gas Valves / Extract etc
- Built-in sounder with 2 stage alarm
- Manual reset and control (on/off) of relay contacts
- Electronically addressed
- Wall-mount (LPG) or ceiling mount (Natural Gas and Coal Gas)

I-9602LW

## Technical Specifications

- Operating voltage: 24V Loop, 24VDC Power Supply
- Operating Consumption (power supply): 1.5Watt
- Alarm Level:  
Pre-alarm 12%LEL  
Urgent Alarm: 23%LEL
- Output: K1/K2, N/O contact, 3A/220VAC, active when pre-alarm  
V1/V2, active output 3A/5VDC, start when urgent alarm
- Operating Environment:  
Temperature: -10 ~+50°C  
Relative Humidity: 95%
- Wiring:  
Non-polarized 2-core for loop  
Non-polarized 2-core for 24VDC power supply
- Dimensions: 121mm x 87mm x 57mm





### Addressable Manual Call Point

- Addressable Manual Call Point (MCP) with re-settable (non breaking) glass
- Additional volt free contacts for local interfacing (i.e. PTZ camera preset)
- Two parts plug-in construction with base mounted termination allows for easy installation and connection
- MCP can be addressed and plugged in to base at time of commissioning
- Electronically addressed
- Suitable for semi-flush and surface mount installation

### Technical Specifications

- Operating Voltage: 24VDC Loop
- Operating Current:
  - Standby Current 0.8mA
  - Alarm Current 2mA
- N/O Output Contact: Rating 60VDC, 0.1A
- Contact Resistance 100mΩ
- Electronically addressed
- Operating Environment:
  - Temperature: -10~+ 50°C
  - Relative Humidity: 95%
- Dimensions: 90mm x 122mm x 48.5mm

I-9201



### Addressable Manual Call Point

- Compatible with latest EN standards
- Non-breaking re-settable glass (via special key)
- Two part plug-in construction with base mounted termination allows easy installation and connection

### Technical Specifications

- Operating Voltage: 24VDC Loop
- Operating Current:
  - Standby Current 0.8mA
  - Alarm Current 2mA
- N/O output contact: Rating 60VDC, 0.1A
- Contact Resistance 100mΩ
- Operating environment:
  - Temperature: -10~+ 50°C
  - Relative Humidity: 95%
- Dimensions: 95mm x 98mm x 40mm

I-9202



### Intelligent Remote Indicator

- Can be program linked to any single or group of devices
- High intensity flashing LED in alarm condition
- Electronically addressed

### Technical Specifications

- Operating Voltage: 24VDC Loop
- Operating Current:
  - Monitoring Current 0.8mA
  - Action Current 16mA
- Operating Environment:
  - Temperature: -10~+ 50°C
  - Relative Humidity: 95%
- Dimensions: 120mm x 80mm x 49mm

I-9314



### Remote indicator

- Remote indicator for direct connection to detector remote indicator terminals
- Compatible with Digital, Intelligent, Innovation and Conventional series Optical Smoke detectors and Dual Heat Detectors.

### Technical Specifications

- Operating Voltage: 2.5 - 3VDC
- Operating Current: <5mA
- Operating environment:
  - Temperature: -10 ~+50°C
  - Relative Humidity: 95%

C-9314P



### Addressable Sounder Beacon

- Addressable combined flashing high intensity LED beacon and sounder
- Two part plug-in construction with base mounted termination allowing easy installation and connection
- Electronically addressed

### Technical Specifications

- Operating Voltage: 24VDC Loop, 24VDC Power Supply
- Operating Current:
  - Loop: Standby Current 0.8mA; Alarm Current 6.0mA
  - Power Supply: Standby Current 10mA, Alarm Current 160mA
- Alarm volume (SPL): 95dB @1 Metre
- Wiring:
  - Non-polarized 2-core for loop
  - Non-polarized 2-core for power supply
- Operating Environment:
  - Temperature: -10~+ 50°C
  - Relative Humidity: 95%
- Dimension: 144mm x 90mm x 57mm

I-9401



### Addressable Base Mount Sounder

- Loop powered sounder
- Low power consumption
- Compatible with intelligent range of detectors
- Wall mount (stand alone with cover) or ceiling mounting
- Electronically addressing
- Multi mode can be configured as single address for evacuation, dual address for alert/evacuation or virtual address to operate with one detector plus programmable evacuation
- Cable-free application

### Technical Specifications

- Operating Voltage: 24VDC Loop
- Operating Current:
  - Standby Current 1mA
  - Action Current 7mA
- Loop capacity: 30 pieces per loop
- Sound Output (SPL): 86dB @1 Metre
- Operating Environment:
  - Temperature -10 ~ +50°C
  - Relative Humidity 95%
- Dimension: Diameter 148mm, Height 34.4mm (without cover), 49mm (with cover)

I-9405



## Addressable Sounder and Strobe

- Two parts construction with base mounted termination allows easy installation
- Evacuate only or Alert/Evacuate mode can be set through handheld programmer
- Remote start input can be used to co-operation with other systems
- Strobe provided by high intensity LED cluster
- Electronically addressed

## Technical Specifications

- Operation Voltage: 24VDC Loop, 24VDC Power Supply
- Operating Current:
  - Loop: Standby Current 1mA; Alarm Current 5mA
  - Power Supply: Standby Current 3mA, Alarm Current 65mA
- Sounder Output: 94dB @ 1 Metre
- Wiring:
  - Non-polarized 2-core for loop
  - Non-polarized 2-core for power supply
- Operating Environment:
  - Temperature: -10~+ 50°C
  - Relative Humidity: 95%
- Dimension: Diameter 110mm, Height 97.5mm

I-9403



## Addressable Sounder

- Identical in appearance and features to the I-9403 but without the strobe element

## Technical Specifications

- Operation Voltage: 24VDC Loop, 24VDC Power Supply
- Operating Current:
  - Loop: Standby Current 1mA; Alarm Current 5mA
  - Power Supply: Standby Current 3mA, Alarm Current 35mA
- Sounder Output: 94dB @ 1 Metre
- Wiring:
  - Non-polarized 2-core for loop
  - Non-polarized 2-core for power supply
- Operating Environment:
  - Temperature: -10~+ 50°C
  - Relative Humidity: 95%
- Dimension: Diameter 110mm, Height 97.5mm

I-9404



## Deep Base

- Optional deep base for Sounder and Strobe (I-9403 / I-9404)

C-94DB





I-9308



### Addressable Sounder Circuit Module

- Cost effective (cable saving) distributed addressable control of conventional sounder circuits
- Connects to conventional polarised 24VDC sounders/strobes
- Utilizes two addresses (one for Alert and one for Evacuate Control)
- Two part plug-in construction with base mounted termination allows easy installation and connection
- Electronically Addressed
- Cable monitoring for fault of short circuit and open circuit

### Technical Specifications

- Operating Voltage: 24VDC Loop, 24VDC Power Supply
- Operating Current (loop):  
Standby Current 1mA
- Output: Maximum 0.5A, polarized
- End of line: 10k $\Omega$
- Operating Environment:  
Temperature: -10~+ 50°C  
Relative Humidity: 95%
- Dimensions: 120mm x 80mm x 40mm



### Addressable VA Zone Control Module

- Voice Alarm system switch module
- Switch between normal broadcast and emergency voice amplifier line
- Dual-relay switch to avoid cross-link
- Two part plug-in construction with base mounted termination allows easy installation and connection
- Intelligent interface can be addressed and plugged in to base at time of commissioning
- Electronically addressed

I-9305



### Technical Specifications

- Operating Voltage: 24VDC Loop, 24VDC Power Supply
- Operating Current (loop):  
Standby Current 1mA  
Action Current 5mA
- Operating Current (power):  
Standby Current 0.3mA  
Action Current 5mA
- Operating Environment:  
Temperature -10 ~ +50°C  
Relative Humidity 95%
- Dimension: 120mm x 80mm x 40mm



I-9300



### Addressable Input Module

- Monitors switch contacts of remote equipment
- Loop powered
- Inputs programmable for NO or NC contacts (Programmable via P9910B hand held programmer)
- Two part plug-in construction with base mounted termination allows easy installation and connection
- Intelligent interface can be addressed and plugged in to base at time of commissioning
- Electronically addressed

### Technical Specifications

- Operating Voltage: 24VDC Loop
- Operating Current:
  - Standby Current 1mA
  - Action Current 5mA
- Operating Environment:
  - Temperature: -10~+ 50°C
  - Relative Humidity: 95%
- Dimension: 120mm x 80mm x 40mm



### Intelligent Single Input /Output Module

- Addressable I/O with 24V / 3Amp relay output contacts
- Input can be configured as NO / NC or self confirmation of output (programmable via handheld programmer (P9910B))
- Two part plug-in construction with base mounted termination allows easy installation and connection
- Intelligent interface can be addressed and plugged in to base at time of commissioning
- Electronically addressed

### Technical Specifications

- Operating Voltage: 24VDC Loop, 24VDC Power Supply
- Operating Current (loop):
  - Standby Current 1mA
  - Action Current 5mA
- Wiring:
  - Non-polarized two-core for loop
  - Non-polarized two-core for 24VDC power supply
- Operating Environment:
  - Temperature: -10~+ 50°C
  - Relative Humidity: 95%
- Dimension: 120 x mm 80mm x 40mm

I-9301



### Intelligent Single Input /Output Module Loop Powered

- Addressable I/O with 24V /3Amp relay output contacts
- Input can be configured as NO / NC or self confirmation of output (programmable via handheld programmer (P9910B))
- Two part plug-in construction with base mounted termination allows easy installation and connection
- Intelligent interface can be addressed and plugged in to base at time of commissioning
- Electronically addressed

### Technical Specification

- Operating Voltage: 24V Loop
- Operating Current:
  - Standby Current 1mA
  - Action Current 5mA
- Wiring:
  - Non-polarized 2-core for loop
- Operating Environment:
  - Temperature: -10~+ 50°C
  - Relative Humidity: 95%
- Dimension: 120 x mm 80mm x 40mm

DI-9301



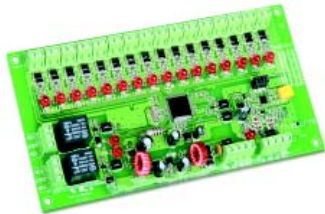
### Addressable Double I/O Module

- Addressable I/O with 24V / 3Amp relay output contacts with 2 independent circuits
- Input can be configured as NO / NC or self confirmation of output (programmable via handheld programmer (P9910B))
- Two part plug-in construction with base mounted termination allows easy installation and connection
- Intelligent interface can be addressed and plugged in to base at time of commissioning
- Electronically addressed

### Technical Specifications

- Operating Voltage: 24VDC Loop, 24VDC Power Supply
- Operating Current (loop):
  - Standby Current 1mA
  - Action Current 8mA
- Wiring:
  - Non-polarized two-core for loop
  - Non-polarized two-core for 24VDC power supply
- Operating Environment:
  - Temperature: -10~+ 50°C
  - Relative Humidity: 95%
- Dimension: 120 x mm 80mm x 40mm

I-9303



## Addressable Multi-channel Interface

- Interface board for plant monitor and control
- Multi channel integrated for saving installation cost
- Input cable fault monitored for short circuit and open circuit
- Ideal for plant room
- Electronically addressed

## Technical Specifications

- Operating Voltage: 24VDC Loop, 24VDC Power Supply
- Operating Current (loop):
  - Monitoring Current 1.5mA
  - Action Current 50mA
- Operating Current (power):
  - Monitoring Current 3mA
  - Action Current 100mA
- Capability: 1 °C 16 input channels  
2 dry contact output channels
- Rate of relay: 2A/220VAC
- End of line: 4.7k $\Omega$  resistor
- Action Resistance: 470~680 $\Omega$
- Operating Environment:
  - Temperature -10 ~ +50°C
  - Relative Humidity 95%
- Dimension: 200mm x 100mm x 20mm (without case)

DI-9309



## Addressable Zone Monitor Unit

- Interfaces with conventional fire detection equipment/panels etc
- Can connect up to 15 detectors with Active EOL or up to 25 detectors with Resistor EOL
- Ideal for integrating Sprinkler Zone Valve and Flow Switches
- Electronically addressed

## Technical Specifications

- Operating Voltage: 24VDC Loop, 24VDC Power Supply
- Operating Current (loop):
  - Monitoring Current 1.5mA
  - Action Current 5mA
- Capability: 15 conventional detectors
- End of line: 4.7k $\Omega$  resistor or AEOL
- Action Resistance: 470~680 $\Omega$
- Operating Environment:
  - Temperature: -10~+ 50°C
  - Relative Humidity: 95%
- Dimension: 120mm x 80mm x 40mm

I-9319





### Short Circuit Isolator

- Isolates faulty part of the loop in the event of a short circuit
- Automatically resetting once the fault has cleared
- LED status indicator

### Technical Specifications

- Operating Voltage: 24VDC
- Action Current: 2A
- Operating Environment:
  - Temperature: -10~+ 50°C
  - Relative Humidity: 95%
- Dimensions: 120mm x 80mm x 40mm

C-9503



### Base Mount Short Circuit Isolator

- Replaces standard detector base (DZ-03)
- Cost effective installation without the need for additional cabling
- Features as per C-9503
- Base Type: Diameter 105mm, Height 20mm

C-9504



### Handheld Programmer

- Portable programming tool for addressing and testing of intelligent devices
- Programs all loop devices (1-242)
- Program I<sup>2</sup>C protocol devices like Reflective Beam Detector and GST8903 Mimic Panel
- Interrogates device for Condition - Manufacturing Batch Number - Date of manufacture - alarm sensitivity
- Reprogram facility enables adjustment to alarm threshold of detectors
- Able to switch on or off the rate of rise function of dual heat detector. (I-9103)
- Adjusts input modules to accept N/C or N/O contacts.

P-9910B



### Addressable Mini Fire Panel

- Single loop addressable panel
- Can connect up to 128 addressable devices
- 8 zone fire and fault indication with customer definable label
- Self configurable via panel keyboard
- Easy commissioning making the GST100 an ideal product for electrical installers.

### Technical Specifications

- Power supply: 230VAC 50/60Hz
- Operating Environment:
  - Temperature: 0~+ 40°C
  - Relative Humidity: 95%
- Dimension: 210mm x 297mm x 90mm

GST100



### Intelligent Single Loop Fire Alarm Panel

Single loop addressable fire detection panel packed with features not usually associated with smaller systems, providing a high quality solution at exceptionally good value.

- Loop capacity 235 intelligent devices
- 30 logical configurable zones
- Graphical LCD Display
- Zone indication and manual intervention panel
- Net-workable with all GST intelligent fire panels
- Programmable from PC
- Built-in RS485 repeater output (Maximum 10 repeaters)
- Optional GMC system
- Optional Fireman's Control Panel
- Optional Panel Printer
- Advanced user friendly programming software including 'Fuzzy Logic'

### Technical Specifications

- Power supply: 230VAC 50/60Hz
- Operating Environment:
  - Temperature: 0~+ 40°C
  - Relative Humidity: 95%
- Dimension: 400mm x 560mm x 178mm

GST200



### Intelligent Two / Four Loop Fire Alarm Control Panel

Addressable fire detection with integrated controls providing the perfect solution for all medium sized projects

- Loop capacity 242 intelligent devices
- 40 X 12 characters Large Graphical LCD Display
- 60 zone indication and manual intervention panel
- Zone indication and manual intervention panel
- Net-workable with all GST fire panels
- Programmable from PC
- Built-in RS485 repeater output (Maximum 64 repeaters)
- Built-in Gas Extinguishing Control
- Integrated Security Alarm Facilities
- Optional Fireman's Control Panel
- Panel Printer included
- Optional GMC system
- Advanced user friendly programming software including 'Fuzzy Logic'
- GST5000/2 Two loop panel can connect up to 480 devices
- GST5000/4 Four loop panel can connect up to 750 devices

### Technical Specifications

- Power supply: 230VAC 50/60Hz
- Operating Environment:
  - Temperature: 0~+ 40°C
  - Relative Humidity: 95%
- Dimension: 500mm x 700mm x 170mm



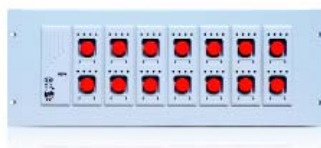
### Intelligent Modular 5-8 Loop Fire Alarm Control Panel

Intelligent panel with modular loop cards expandable to 8 loops, perfect solution for all medium to large sized projects

- 8 Loops capacity 1920 addressable devices
- Flush mount
- 40 X 12 characters Large Graphical LCD Display
- 60 logical configurable zones
- Zone indication and manual intervention panel
- Net-workable with all GST fire panels
- Programmable from PC
- Built-in RS485 repeater output (Maximum 64 repeaters)
- Built-in Gas Extinguishing Control
- Integrated Security Alarm Facilities
- Panel Printer included
- Optional GMC system
- Advanced user friendly programming software including 'Fuzzy Logic'
- Separate wall mounted monitored PSU with built-in battery charger
- Expand loop capacity by additional loop cards LC5000

### Technical Specifications

- Power supply: 230VAC 50/60Hz
- Operating Environment:
  - Temperature: -0~+ 40°C
  - Relative Humidity: 95%
- Dimension: 500mm x 706mm x 170mm (front panel)  
500mm x 500mm x 189mm (PSU)



## Intelligent Modular 1-20 Loop Fire Alarm Control Panel

Fully modular and expandable fire command system, with multi loop and full integration with GST Voice Alarm System and Fire Telephone System, housed in either rack or console type housing provides the perfect solution for all medium to large systems.

- Loop capacity 240 intelligent devices (up to 4800 addressable points)
- 40 X 12 characters Large Graphical LCD Display
- 64 zone indication and manual intervention control expandable to 254 zones and plant overrides
- Net-workable with all GST fire panels
- Programmable from PC
- Built-in Gas Extinguishing Control
- Integrated Security Alarm Facilities
- Optional Fireman's Control Panel
- Panel Printer included
- Optional Colour Graphics
- Advanced user friendly programming software including 'Fuzzy Logic'
- Total integration with GST addressable Voice Alarm systems
- Order additional loop cards separately GST5000LC

## Technical Specifications

- Power supply: 230VAC 50/60Hz
- Operating Environment:
  - Temperature: -0~+ 40°C
  - Relative Humidity: 95%
- Dimension: 580mm x 520mm x 1873mm (Rack type enclosure)  
1080mm x 1113mm x 1350mm (2 bay console)

## Fireman's Control Panel

- CPU controlled switches with addressable and direct outputs
- Ideal for controls of smoke vents, AHUs, exhaust fans, smoke curtains, etc.

## Components for FCP-014

- to build fireman's switch on wall mount panels

GST5000/20/C

GST5000/20/R

GST-FCP14

FCP-M01&

FCP-Z02





### LCD Passive Repeater Panel

- Aesthetically pleasing design with large LCD display
- Compatible with all GST intelligent fire alarm panels
- Back Lit LCD displays all fire information
- Local sounder mute and scroll alarms buttons
- Two part plug-in construction with base mounted termination allows easy installation and connection
- Repeater can be plugged in to base at time of commissioning

GST852RP

### Technical Specifications

- Operation Voltage: 24VDC
- Standby Power: 2W
- Maximum Power: 5W
- Operation Environment:
  - Temperature: -0~+ 40°C
  - Relative Humidity: 95%
- Dimension: 234mm x 104mm x 35mm



### Network Repeater Panel

- Display network message by LCD screen
- Achieve remote control of system
- Password protect access levels
- Flush-mount or Surface-mount structure

GST-NRP01

### Technical Specifications

- Operation Voltage: 24VDC
- Standby Power: 2W
- Maximum Power: 5W
- Operation Environment:
  - Temperature 0 ~ +40;äC
  - Relative Humidity 95%
- Dimension: 390mm x 270mm x 100mm



### Graphical Monitor Centre

- Colour graphic control and display system, providing a complete window onto the fire detection systems and ancillary equipment
- Compatible with all GST intelligent fire panels
- Multi-level password control for convenient system management
- PC not included

GSTGMC



# INNOVATIVE CONVENTIONAL DEVICES

The Innovation range of detectors are setting a new standard in conventional detection by utilizing our expertise in intelligent fire detection. We now offer unrivaled features such as:

- Adjustable Sensitivity
- Linear Drift Compensation
- Algorithm maps for faster response and false alarm rejection
- Blinking LED
- Magnetic Test Facility



### Innovative Multi Sensor

- Combined all the features of DC-9102 Optical and the DC-9103 Heat detector
- LED for 360° vision
- Sensing chamber for exceptional dust proof ability
- Ideal alternative to Ionization detector
- Low profile design

### Technical Specifications

- Standard: EN54-part 5, part 6 and Part 7
- Operating Voltage: 24VDC
- Operating Current:
  - Standby Current 0.06mA
  - Alarm Current 30mA
- Operating Environment:
  - Temperature: -10~+ 50°C
  - Relative Humidity: 95%
- Field Programmable Sensitivity: 0.10dB/m ~ 0.56dB/m-3 levels
- Dimensions: Diameter 100mm, Height 44.5mm

DC-9101



### Innovative Optical Smoke Detector

- Algorithm maps for faster response and false alarm rejection
- Intelligent drift compensation
- Sensing chamber for exceptional dust proof ability and LED for 360° vision
- Built in remote indicator output
- Unique Low profile design
- EN54 compliance

### Technical Specifications

- Standard: EN54-part7
- Operating voltage: 24VDC
- Operating Current:
  - Standby current 0.06mA
  - Alarm Current 30mA
- Operating Environment:
  - Temperature: -10~+ 50°C
  - Relative Humidity: 95%
- Field Programmable Sensitivity: 0.10dB/m ~ 0.25dB/m-3 levels
- Dimensions: diameter 100mm; height 44.5mm

DC-9102



### Innovative Conventional Dual Heat Detector

- Combined fixed temperature and rate of rise heat detection
- LED for 360° vision
- Built in remote indicator output
- Unique low profile design
- EN54 compliance

### Technical Specifications

- Standard: EN54-part5
- Operating Voltage: 24VDC
- Operating Current:
  - Standby Current 0.06mA
  - Alarm Current 30mA
- Operating Environment:
  - Temperature: -10~+ 50°C
  - Relative Humidity: 95%
- Dimensions: Diameter 100mm, Height 41mm
- Detector Class: A1S, A1R, A2S, A2R, BS, BR

DC-9103



### Diode Base

- Diode base for DC range of conventional detectors
- For use with DP-9907 Active End of Line

DB-01D



### Active End of Line

- Active End of Line for conventional fire detection zones
- It can be used as conventional detector base or work independent with a cover
- Provides detector removal indication while still enabling alarms down stream of the missing device to be detected
- Compatible with all GST conventional panels
- Compatible with addressable zone interface I-9319

DP-9907



### Innovative Manual Call Point

- Re-settable (non-breaking glass) via special key
- Friendly installation and test
- Wiring before termination
- Semi-flush or surface mount installation
- Optional back-box for surface mount
- Stylish pleasing design

DC-9204

### Technical Specifications

- Protection Rating: IP 30
- Operating Voltage: 24VDC
- Operating current:
  - Standby Current 0
  - Alarm Current 30mA
- Operating Environment:
  - Temperature: -10~+ 50°C
  - Relative Humidity: 95%
- Contact Resistance: 100mΩ
- Application: Indoor use
- Dimensions: 87 x 87 x 58 mm, Surface Mount  
87 x 87 x 23.5 mm, Recess Mount





# Conventional Fire Alarm System



C-9102



### Conventional Optical Smoke Detector

- Aesthetically pleasing low profile design
- Twin LED for 360° vision
- Removable optical chamber for easy cleaning and maintenance
- With remote indicator output
- EN54 compliance



### Technical Specifications

- Standard: EN54-part7
- Operating Voltage: 24VDC
- Operating Current:
  - Standby Current 0.06mA
  - Alarm Current 30mA
- Operating environment:
  - Temperature: -10~+50°C
  - Relative Humidity: 95%
- Dimensions: Diameter 100mm, Height: 50mm

C-9103



### Conventional Dual Heat Detector

- Fixed Temperature and Rate of Rise Heat Detection
- Aesthetically pleasing low profile design
- 8 bit intelligent processor
- Twin LED for 360° vision
- With remote indicator output



### Technical Specifications

- Standard: EN54-part5
- Operating Voltage: 24VDC
- Operating Current:
  - Standby Current 0.06mA
  - Alarm Current 30mA
- Operating environment:
  - Temperature: -10~+50°C
  - Relative Humidity: 95%
- Dimensions: Diameter 100mm, Height: 50mm



### Conventional Multi Sensor

- Combined all the features of C-9102 Optical and the C-9103 Heat detector to provide the ultimate cover for life safety systems
- Twin LED for 360° vision
- Ideal alternative to Ionization detector

### Technical Specifications

- Standard: EN54-part 5, part 6 and Part 7
- Operating Voltage: 24VDC
- Operating Current:
  - Standby Current 0.06mA
  - Alarm Current 30mA
- Operating Environment:
  - Temperature: -10~+50°C
  - Relative Humidity: 95%
- Dimensions: Diameter 100mm, Height: 50mm

C-9101



### Conventional Ultraviolet Flame Detector

- Sensitive Ultraviolet sensor that detects the UV rays produced by a flame
- Aesthetically pleasing low profile design
- Dust / corrosion / humidity resistant
- Standard calibration set to detect a 3cm flame at 6 metres
- Effective range 12 metres

### Technical Specifications

- Operating voltage: 24VDC
- Operating current:
  - Standby current: 1.2mA
  - Alarm current 30mA
- Operating Environment:
  - Temperature: -10~+50°C
  - Relative Humidity: 95%
- Detection Angle: 80 Degree
- Dimensions: Diameter: 100mm Height: 50mm

C-9104



### Standard Detector Base

- Fixing and terminating of conventional detectors with directional gaps
- Compatible with GST conventional detectors using 4k7Ω, resistor end of line (EOLR)
- Common base for C-9101 / 2/ 3/ 4

DZ-03

### Diode Base

- Diode base version for conventional detectors utilising P-9907 active end of line (AEOL)
- Common base for C-9101 / 2/ 3/ 4

DZ-03D



## Conventional Reflective Beam Detector

- Range 8-100 Metres
- 2 selectable levels of sensitivity adjustment
- Ideal for Atriums, Warehouses, Shopping Centres, Airport Terminals etc.
- Simple and cost effective to install of transmitter and reflective 'honey comb' mirror
- Quick and easy to set up and align with visual Green LED indication that flashes faster or slower subject to signal strength. Replace the cover and the detector will self calibrate to the required level

## Technical Specifications

- Operating voltage: 24VDC
- Operating current:
  - Commission Current 20mA
  - Standby current 12mA
  - Alarm current 22mA
- Detection Range: Length from 10 to 100 meters, width 7 metres on both sides
- Wiring: Non-polarized 2-core 24VDC
- Operating environment:
  - Temperature: -10~+50°C
  - Relative Humidity: 95%

C-9105R



## Conventional Combustible Gas Detector

- Available for LPG, Natural Gas and Coal Gas (please specify at time of order)
- Built-in relay contacts for control of Gas Valves / Extract etc
- Built-in sounder with 2 stage alarm
- Manual reset and control (on/off) of relay contacts

## Technical Specifications

- Operating voltage: 220VDC
- Operating Consumption: 5Watt
- Alarm Level: Pre-alarm 12%LEL
  - Urgent Alarm: 23%LEL
- Output: K1/K2, N/O contact, 3A/220VAC, active when pre-alarm
  - V1/V2, active output 3A/5VDC, start when urgent alarm
- Operating Environment:
  - Temperature: -10~+50°C
  - Relative Humidity: 95%
- Wiring: 2-core AC power supply

C-9602LW





### Conventional Manual Call Point

- Manual Call Point (MCP) with re-settable (non breaking) glass
- Additional volt free contacts for local interfacing (i.e. PTZ camera preset)
- Two parts plug-in construction with base mounted termination allows for easy installation and connection
- Suitable for semi-flush and surface mount installation

### Technical Specifications

- Operating Voltage: 24VDC
- Operating Current:
  - Standby Current 0
  - Alarm Current 30mA
- N/O Output Contact: Rating Value 60VDC, 0.1A
- Contact Resistance 100mΩ,
- Operating Environment:
  - Temperature: -10~+50°C
  - Relative Humidity: 95%
- Dimensions: 90mm x 122mm x 48.5mm

C-9201



### Conventional Manual Call Point

- Compatible with latest EN standards
- Non-breaking re-settable glass (via special key)
- Two part plug-in construction with base mounted termination allows easy installation and connection

### Technical Specifications

- Operating Voltage: 24VDC
- Operating Current:
  - Standby Current 0
  - Alarm Current 30mA
- N/O output contact: Rating 60VDC, 0.1A
- Contact Resistance 100mΩ,
- Operating environment:
  - Temperature: -10~+50°C
  - Relative Humidity: 95%
- Dimensions: 95mm x 98mm x 40mm

C-9202



### Conventional Sounder Beacon

- Conventional combined flashing high intensity LED beacon and sounder
- Two part plug-in construction with base mounted termination allowing easy installation and connection

### Technical Specifications

- Operating Voltage: 24VDC
- Operating Current:
  - Standby Current 0
  - Alarm Current 160mA
- Alarm volume (SPL): 95dB @1 Metre
- Wiring: 2-core polarized
- Operating Environment:
  - Temperature: -10~+ 50°C
  - Relative Humidity: 95%
- Dimension: 144mm x 90mm x 57mm

C-9401



### Conventional Sounder Base

- Conventional Base Mounted Sounder
- Can be used as a common base of detector or stand alone with a cover
- Compatible sound with I-9403 / C-9403 Sounder Flasher

### Technical Specifications

- Operating Voltage: 24VDC
- Operating Current:
  - Standby Current 0
  - Action Current 15mA
- Loop capacity: 30 pieces per loop
- Sound Output (SPL): 89dB @1 Metre
- Wiring: 2-core polarized
- Operating Environment:
  - Temperature: -10~+ 50°C
  - Relative Humidity: 95%
- Dimension: Diameter 120mm, Height 38.8mm (without cover)  
48.8mm (with cover)

C-9402



### Conventional Sounder and Strobe

- Two parts construction with base mounted termination allows easy installation
- Strobe provided by high intensity LED cluster

### Technical Specifications

- Operation Voltage: 24VDC
- Operating Current:
  - Standby Current 0
  - Alarm Current 65mA
- Sounder Output: 94dB @ 1 Metre
- Wiring: 2-core polarized
- Operating Environment:
  - Temperature: -10~+50°C
  - Relative Humidity: 95%
- Dimension: Diameter 110mm, Height 97.5mm

C-9403



### Conventional Sounder

- Identical in appearance and features to the C-9403 but without the strobe element

### Technical Specifications

- Operation Voltage: 24VDC
- Operating Current:
  - Standby Current 0
  - Alarm Current 35mA
- Sounder Output: 94dB @ 1 Metre
- Wiring: 2-core polarized
- Operating Environment:
  - Temperature: -10~+50°C
  - Relative Humidity: 95%
- Dimension: Diameter 110mm, Height 97.5mm

C-9404



### Deep Base

- Optional deep base for Sounder and Strobe (C-9403 / C-9404)

C-94DB



GST101



GST102



GST104



GST108



GST116

### Conventional Fire Alarm Panels

- 1/2/4/8/16 zone conventional fire alarm panels
- Both End of Line Resistor and Active End of Line can be used
- Day/night mode selected (not valid for GST101&GST102)
- Zone isolate control
- One man test
- Key-control evacuate over-ride
- Repeater output available
- Fire alarm output for remote alarm
- Class change terminal for remote control
- Active EOL enables multiple alarm reporting from same zone
- Active EOL max 15 fire detectors and infinite manual buttons each zone
- Resistor EOL up to 25 detectors and infinite manual buttons each zone
- Optional relay output board

### Technical Specifications

- Power supply: 230VAC 50/60Hz
- Operating Environment:
  - Temperature: 0~+40°C
  - Relative Humidity: 95%
- Dimension 380mm x 320mm x 95mm







### 16 Zone Conventional Repeater Panel

- Compatible with GST102/4/8/16
- Powered from FACP directly
- Zonal Fire and general Fault indication
- Dimension: 280mm X 110mm X 46mm

GST-RP16



### Active End of Line

- Active End of Line for conventional fire detection zones
- It can be used as conventional detector base or work independent with a cover
- Provides detector removal indication while still enabling alarms 360°down stream of the missing device to be detected
- Compatible with all GST conventional panels
- Compatible with addressable zone interface I-9319
- Compatible with C-9101/2/3/4

P-9907



# Gas Extinguishing System



### Conventional Gas Extinguishing Control Panel

- Two plus one control panel
- Standalone gas extinguishing control panel
- 2 conventional detection zones achieve double knock control
- Additional standard fire detection zone for other areas (no effect on gas release)
- Automatic and Manual extinguishing control
- Numerical onboard timer control
- Adjustable gas release delay timer
- Duty and Standby Cylinder control
- Two phase evacuation sounders
- Adjustable Solenoid Pulsed output
- Compatible with all GST conventional detectors
- Fully compliant to BS/EN/CE standards
- Built-in PSU and Charger

GST-301



### Addressable Gas Extinguishing Control Panel

- Compatible with all GST Intelligent Fire Alarm Control Panels
- Sits directly on addressable loop
- Direct intelligent control via addressable Loop
- Capable of controlling up to 6 zones of extinguishing
- Auto and manual control facilities
- Utilises GST intelligent detectors and programming (inc Fuzzy Logic) for control
- Fully monitored status control
- Duty and Standby Cylinder control
- Requires 24VDC Power supply

GST-303/306



### Emergency Start/Abort Switch

- Emergency Start/Abort switch for gas extinguishing control
- Compatible with GST301/303/306 gas extinguishing control panels

C-9317



### Gas Extinguishing Warning Indicator

- Normally installed above the entrance to a gas extinguishing control area
- Will eliminate and activate sounder prior to gas release

C-9318



### Interposing Relay Module

- Compatible with GST303/306
- Monitoring cable from gas panel to module
- Apply power to solenoid valve for gas release initiation
- Confirmation signal of pressure switch when activated

C-9329





# Fire Telephone System



### Conventional Fire Telephone Panel

- 8 zone Conventional Fire Telephone Centre, a dedicated audio communication system, providing 2-way speech between the Fire Team and the Central Command Controller
- Normally installed in high-risk buildings where radio communication would be limited due to the extensive concrete structure
- 240VDC operated
- Wall mount type
- Operator can select single or multi zones for simultaneous communication
- Operator can ring outstations and fixed handsets

GST-FT8W



### Conventional Fire Telephone Panel

- 24 zone Conventional Fire Telephone Centre, a dedicated audio communication system, providing 2-way speech between the Fire Team and the Central Command Controller
- Normally installed in high-risk buildings where radio communication would be limited due to the extensive concrete structure
- Auto-record conversation
- 24VDC operated
- 19"/3U standard rack mount
- Operator can select single or multi zones for simultaneous communication
- Operator can ring outstations and fixed handsets

GST-FT24



### Speaker Fire Telephone outstation

- Hand-free extension of Fire Telephone System
- Compatible with all GST conventional fire telephone handsets in same zone

P-9911(S)



### Fixed Fire Telephone Handset

- Fixed extension of Fire Telephone System
- Open box and lift receiver to communicate with central control
- Compatible with all GST conventional fire telephone handsets in same zone

P-9911(F)



### Fire Telephone Jack Socket

- Simply insert mobile handset into jack to establish communications with the control centre
- Compatible with all GST conventional fire telephone handsets in same zone

P-9911(J)



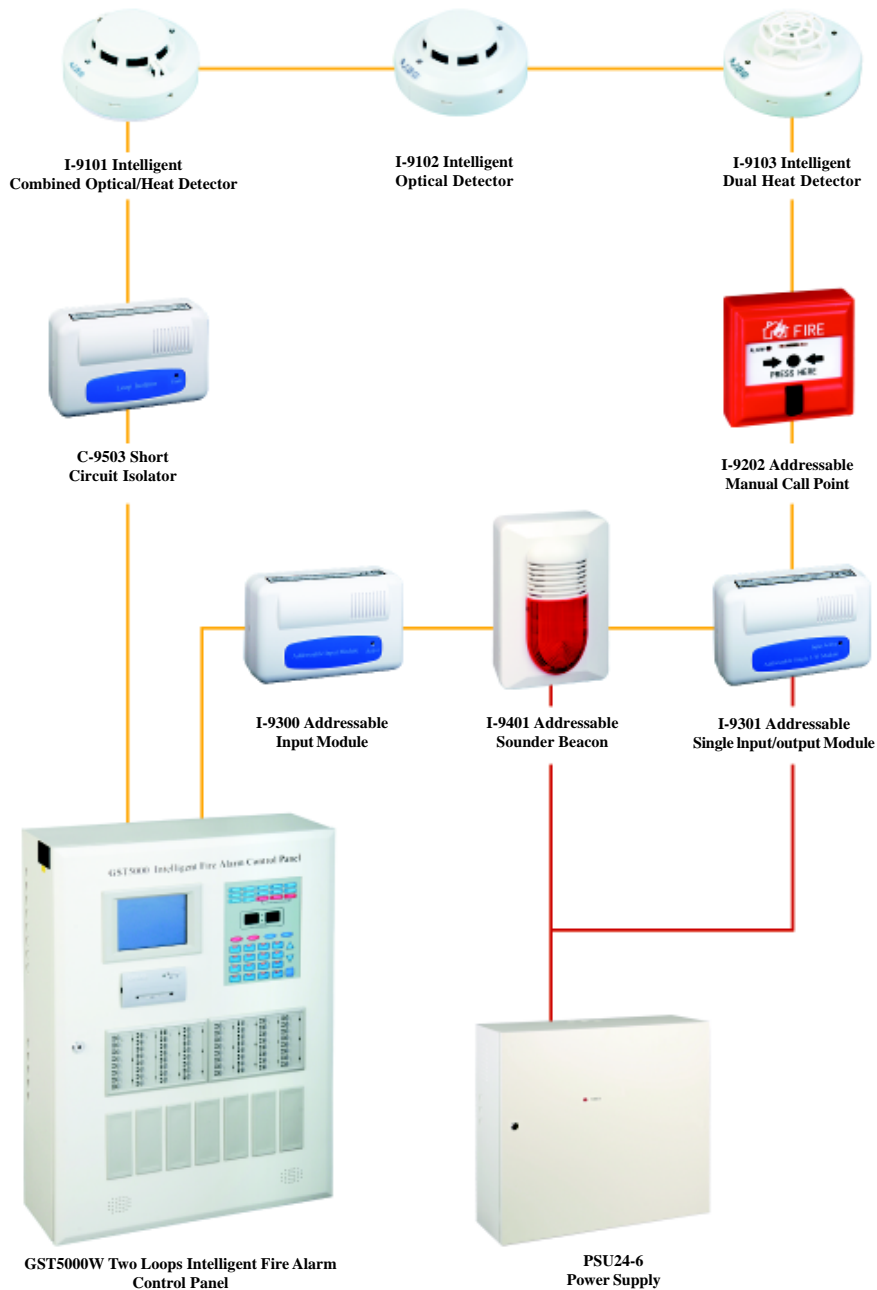
### Fire Telephone Mobile Handset

- Mobile handset compatible with GST fire telephone jacks

P-9911(M)



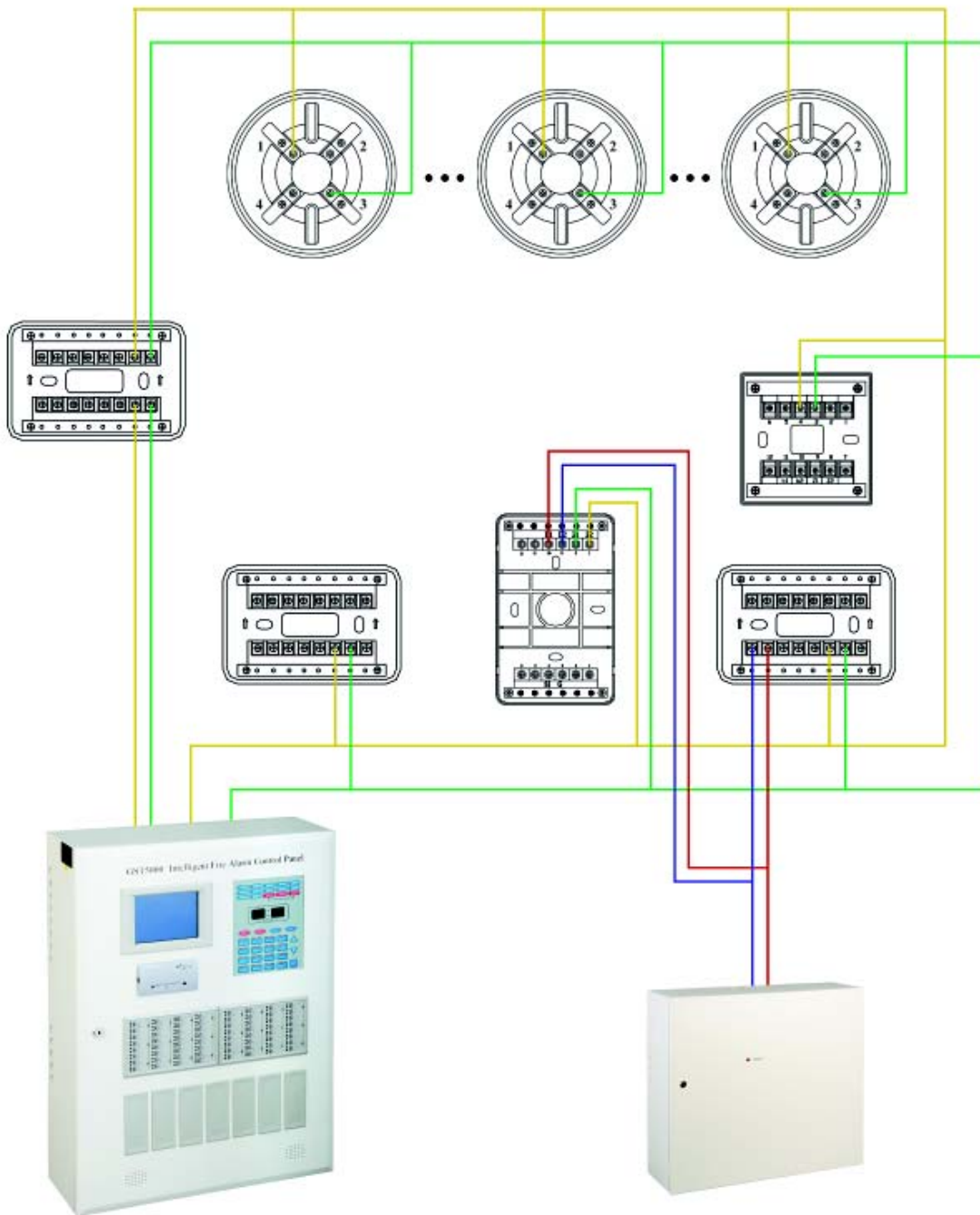
## Intelligent Fire Alarm System





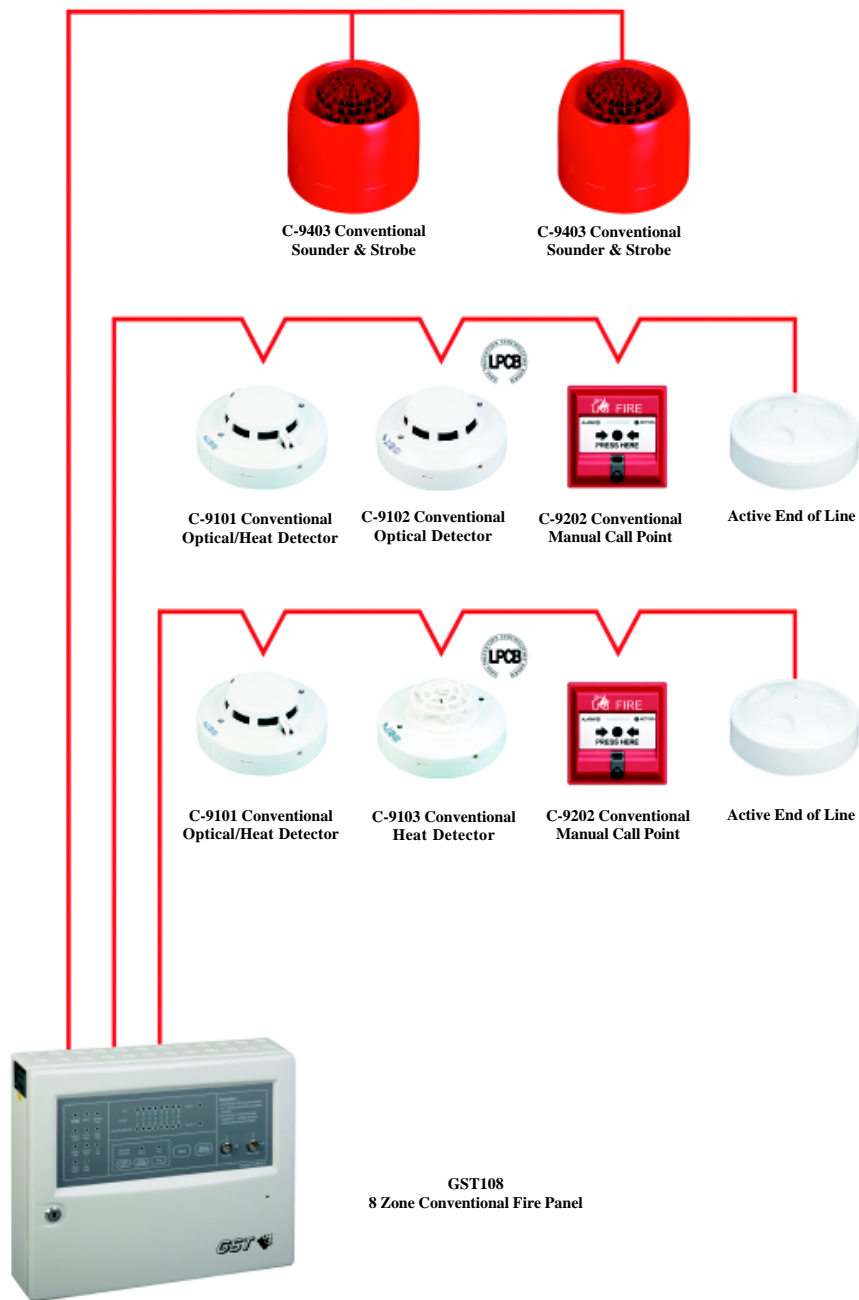


## Intelligent Fire Alarm System Connection





## Conventional Fire Alarm System

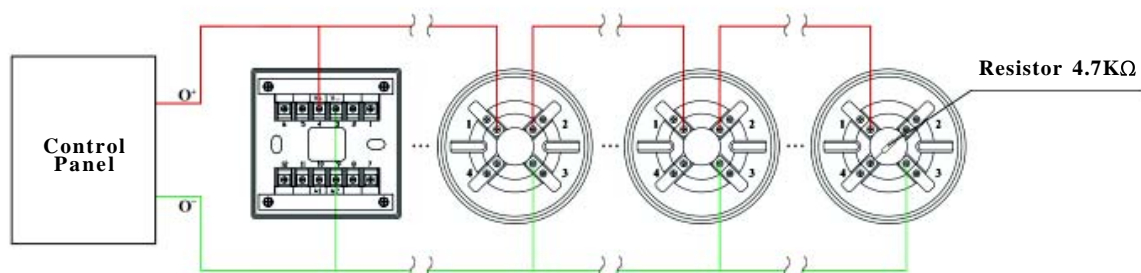




# Conventional Fire Alarm System Connection

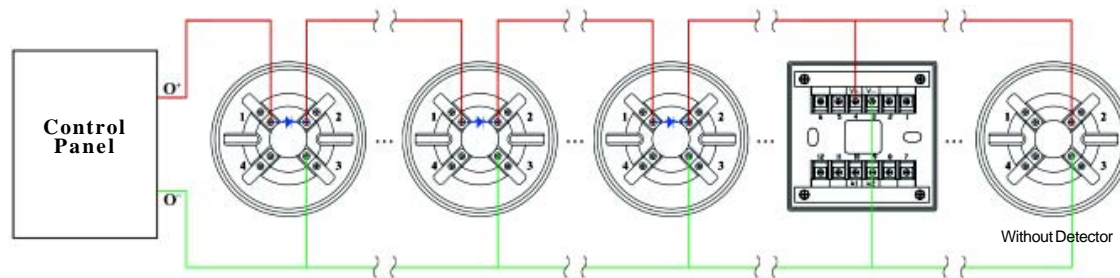
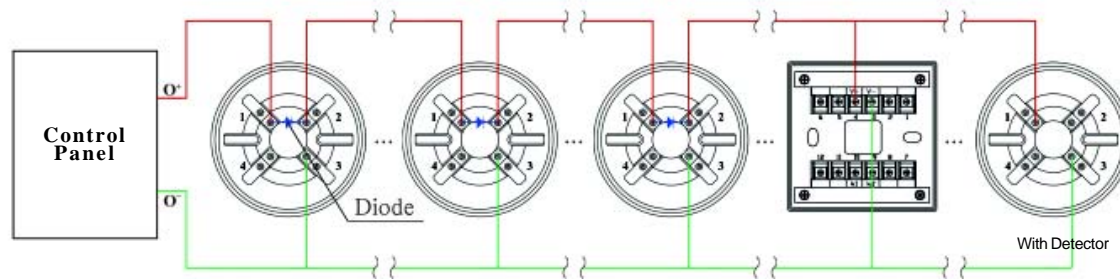
## 1. Using End of Line Resistor

NOTE: In compliance with EN/BS standard, when using EOL Resistor, call points should be wired before detectors, so that the removal of any detector will not inhibit call points from operating.



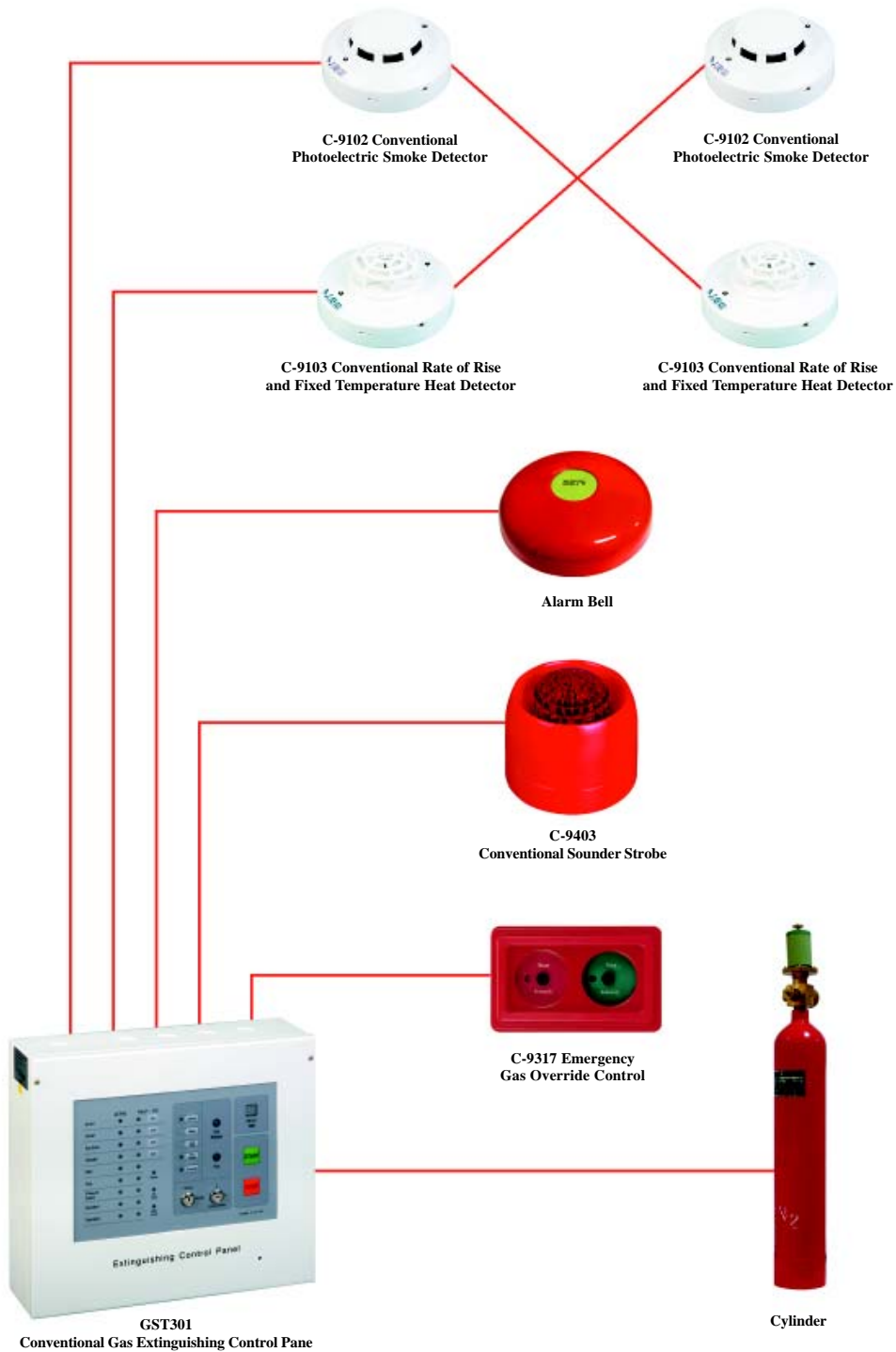
## 2. Using Active End of Line

AEOL enables call points to be installed in any location on zone (circuit), as will not be affected by removal of detector (Diode base DZ-03D is required for detectors)  
Please pay attention to the polarisation.





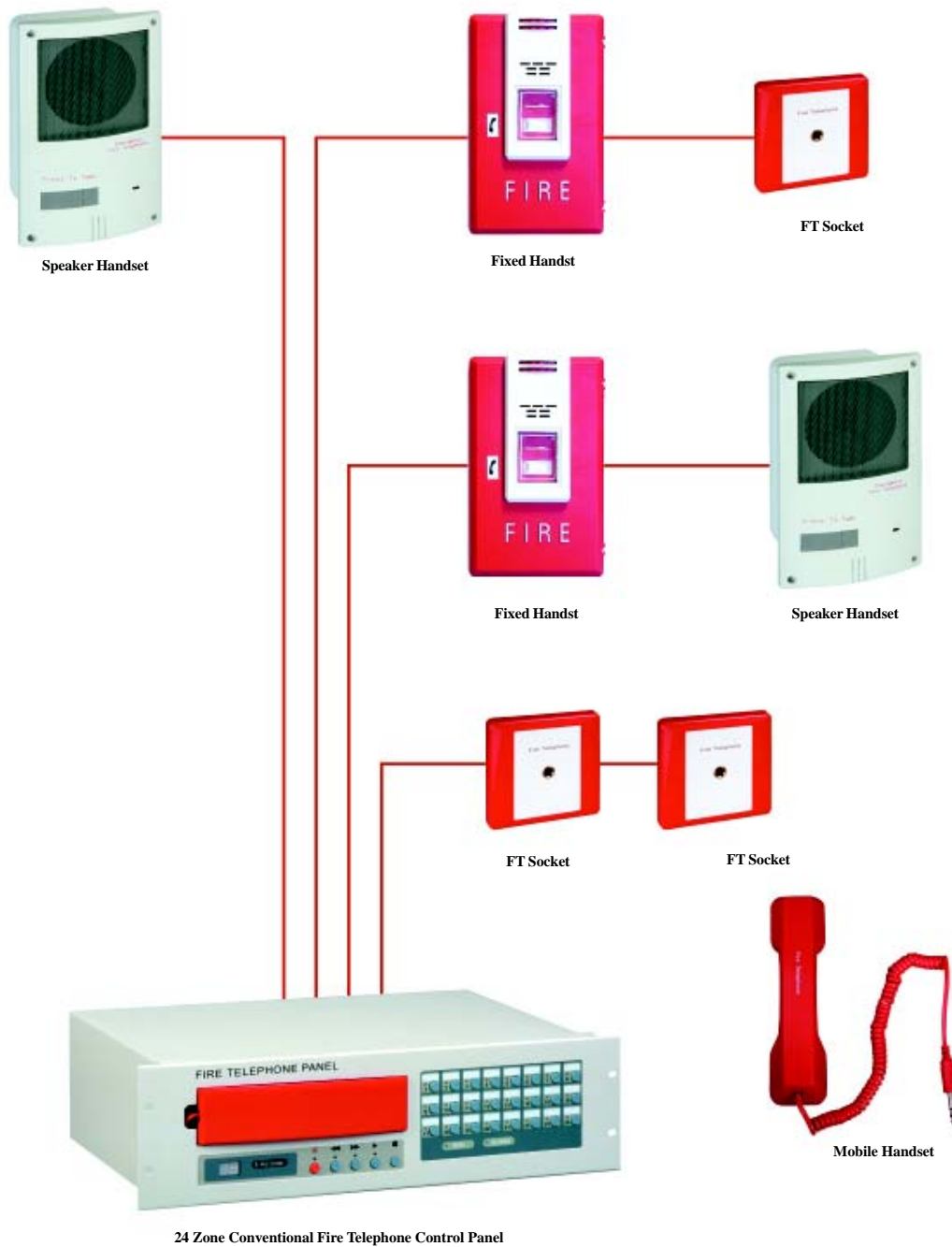
## Standalone Gas Extinguishing Control System







## Conventional Fire Telephone System



**GST**



Projects





With over 1/4 million systems supplied and installed worldwide GST has the solution available "as standard"



## **GST China**

### **GST Holdings Limited**

Add.: Suite 6308, Central Plaza, 18 Harbour Road, Hongkong

Tel: +852 2877 8566 Fax: +852 2511 8699

Add.: 18F, Block B, the Gate Tower, No.19, Zhongguancun Ave.,

Haidian, Beijing, P.R.China

Tel: +86 (0)10 8248 7797 Fax: +86 (0)10 8248 7779

### **Gulf Security Technology Co., Ltd.**

Add.: NO.80 Changjiang East Road, QETDZ, Qinhuangdao, Hebei, China

Tel: +86 (0)335 850 2383 Fax: +86 (0)335 850 8942

[www.gst.com.cn](http://www.gst.com.cn)

[sales@gst.com.cn](mailto:sales@gst.com.cn)

## **GST UK**

### **Global System Technology PLC**

Add.: Lion Court, Staunton Harold Hall, Melbourne Road, Ashby de la Zouch,

Leicestershire, England LE65 1RT

Tel: +44 (0)1283 225 478 Fax: +44 (0)1283 220 690

### **GST Dubai**

Add.: ZA04, Jebel Ali Free Zone, P.O. Box 17998, Dubai, UAE

Tel: +971 (0)4 8833 050 Fax: +971 (0)4 8833 053

[www.gst.uk.com](http://www.gst.uk.com)

[info@gst.uk.com](mailto:info@gst.uk.com)



**GST Holdings Limited**



**GST Intelligent Solution**

**Ver. 2007. 10**

