# Fire Detection & Alarm System

## One-stop Fire Solutions

GST

Carrier

# Parent Company Carrier

GST's parent company, Carrier, is an outstanding global provider of healthy, safe sustainable and intelligent building and cold chain solutions with a world-class, diverse workforce, headquartered in Florida, USA. With more than a century of expertise, we drive innovation while putting our customers first, helping protect our planet, and inspiring and empowering our people. Through our performance-driven culture, we are driving shareowner value by growing sales and investing strategically to strengthen our position in the markets we serve.

Our Fire & Security business encompasses a wide range of residential, commercial and industrial systems, including fire and carbon monoxide detection, alarm signaling, incident management, evacuation, monitoring fire, gas and water mist suppression, fire and gas safety solutions and industrial equipment controls. Our security business offers access control and event monitoring, electronic locks, hospitality solutions, mobile apps and credentialing, real estate access solutions, remote access management, video management and video analytics.

# Gulf Security Technology Co., Ltd. (GST)

Gulf Security Technology Co., Ltd, GST, is a key player in the Asia fire and security industry and a trusted provider of comprehensive fire system solutions around the world. It is a subsidiary of Carrier (Carrier Global Corporation), an outstanding global provider of healthy, safe sustainableand intelligent building and cold chain solutions with a world-class, diverse workforce.

GST provides a wide range of fire products and customized fire system solutions tailored to the needs of different industries. With a sales infrastructure that covers many countries and regions, and includes a China-wide network of more than 150 sales offices and several logistics centers, GST has become an important part of Carrier's global business.

To satisfy the needs of its global customer base, GST has established extensive R&D facilities in Beijing and Qinhuangdao in northern China. It constantly strives to develop innovative new technologies and products. GST's factory in Qinhuangdao is a large manufacturing base producing intelligent electronic products that incorporate innovative technology. To ensure superior product quality, it has advanced manufacturing and inspection equipment and strong capabilities in quality control and process management.

GST has earned a range of national and international certificates of conformity to standards such as China's CCC, the international UL, the global LPCB, Europe's CE, etc.
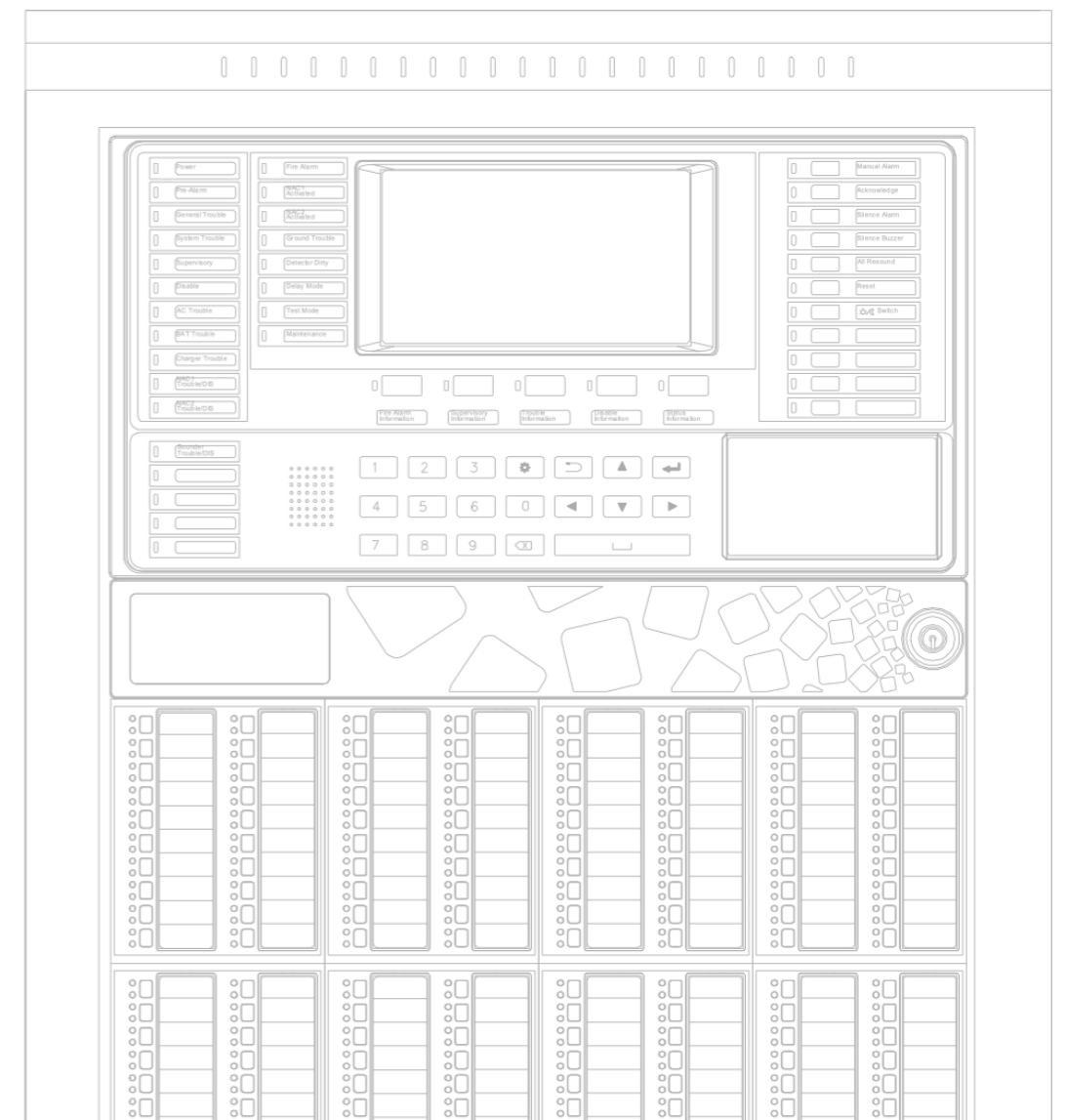
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Leading innovative technology
Safeguarding lives and properties

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## GST-IFP4M-S (Small/Grey)
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**LC-401**
Single Loop Card

**P-9966A**
CAN Class A Network Card

**LC-402**
Dual Loop Card

**P-9956-ModBus**
ModBus Card for 3rd party interfacing

**P-9983**
Fibre Network Card

## Intelligent Fire Alarm Control Panel

Complies with UL864 10th Edition standards. All circuit boards are installed in a metal cabinet optional in red or grey color, providing a complete fire control system for most applications. Modularized structure allows the panel to meet different requirements by adjusting the configuration. Very easy for installation, operation and maintenance.

**P-9981**
Zone Display Panel (Bicolor)

## Features

- · 7-inch touch screen
- · Wide range power supply 100-240V 50/60Hz
- · Support 1-6 loops in Class A style (additional battery box is required for 5 or 6 loops application)
- · 242 addressable devices per loop mixing various types of devices, max. 1452 addresses
- · History records of 100,000 events
- · 2 Power Limited Class B Notification Appliance Circuits (NAC), total load max.2.5A/24VDC. The 2nd NAC can be set as AUX.
- · "Walk test", silent or audible
- · Positive Alarm Sequence (PAS) per point
- · Report device type mismatch and duplicated address
- · CAN/Fiber Networking, Panel grouping
- · Redundancy CPU
- · Option connecting with BMS via optional Modbus Card or built-in BACnet (License for order optionally)
- · Multi languages: Standard English language and other regional languages
- · Cabinet color options: Grey, Red
- · Cabinet size option:

   Regular( GST-IFP4M): 815mm*490mm*144mm; with Zone Display Panel option
   Small(GST-IFP4M-S): 560mm*490mm*144mm; without Zone Display Panel option

**P-9982**
Zone Display and Control Panel (Bicolor)

**P-9981F**
Zone Display Panel (Fixed)

**P-9982F**
Zone Display and Control Panel (Fixed)

**MP-401**
Redundancy CPU Card

**PR-400B**
Thermal Printer (RS232)

UL is a registered trademark owned by UL LLC.

# GST-M200

## Intelligent Fire Alarm Control Panel

Adopts GST digital loop protocol for an intelligent fire alarm system. 1/2 loops, wall- mounted, suitable for small to medium-sized projects.

**UL LISTED**

## Features

- Single loop of 240 address
- Optional L200 to expand the 2nd loop/extra 242 addresses
- 100VAC to 230VAC, 50/60Hz
- 2 Style Y Notification Appliance Circuits (NAC)
- 3 fixed relay outputs for fire/fault/supervisory
- Optional USB printer interface
- Optional graphic monitor station connection
- Walk Test function
- Positive Alarm Sequence (PAS) per point
- Advanced user friendly programming software including 'Fuzzy Logic'
- Programmable by keypad or by PC through P-9930 communication card

### LC200
Loop Card

### P-9930
RS232 Communication Card

### P-M9930Modbus
RS232 ModBus Communication Card

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# GST-MNA2C(CAN)
# GST-MNA2F(Fibre)

## Network Annunciator

Complies with UL864 10th Edition standards. All circuit boards are installed in a metal cabinet, optional in red or grey color, providing a complete fire control system for most applications. Modularized structure allows the panel possible to meet different requirements by adjusting the configuration. Very easy for installation, operation and maintenance.

**UL LISTED**

## Features

- Receive message and send command (Reset, Silence, ACK, etc.) through network
- LCD display unit of 800 x 480, 7.0" color TFT LCD
- Capacitive touch screen
- History file 100,000 events capacity
- Password and key-protected non-volatile memory
- User programmable password
- Field-programmable or by pc with GST-IFPx-Def Defining Tool
- Network interface:
    GST-MNA2C: CAN, Class A
    GST-MNA2F: Fiber-Optic, Class A
- Cabinet color options: Grey, Red

## DI-M910X Series Detectors

**Adopt the latest digital loop protocol compatible with GST UL listed intelligent fire alarm control panels. With digital communication protocol, the detectors can quickly raise an alarm signal with full features within seconds, suitable for hotels, restaurants, office buildings, schools, banks, warehouses, libraries, computer rooms, switch rooms, etc.**

## DI-M9101

**Intelligent Combination Heat Photoelectric Smoke Detector**

· Electronic addressed, easy to rewrite on site
· Drift compensation, strong environmental adaptability, anti-pollution ability
· Fixed-temperature fire alarm via semi-conductor heat sensor that analyzes temperature status
· Fire LED allows 360° viewing
· Option to switch off polling LED avoiding light interference
· 2-level programmable sensitivities
· Reed switch test
· Auto-diagnostic for sensor fault and optical chamber dusty
· Removable innovative sensing chamber, easy for maintenance
· Built in alarm output circuit, each detector can connect to a remote indicator C-9314P and BP-9314

## DI-M9102

**Intelligent Photoelectric Smoke Detector**

· Electronic addressed, easy to rewrite on site
· Drift compensation, strong environmental adaptability, anti-pollution ability
· Fire LED allows 360° viewing
· Option to switch off polling LED avoiding light interference
· Reed switch test
· Auto-diagnostic for sensor fault and optical chamber dusty
· Removable innovative sensing chamber, easy for maintenance
· Built in alarm output circuit, each detector can connect to a remote indicator C-9314P and BP-9314

## DI-M9103

**Intelligent Rate-of-Rise and Fixed-Temperature Heat Detector**

· Electronic addressed, easy to rewrite on site
· Semiconductor heat sensor analyzing temperature status
· FT or FT/RoR heat detection mode programmable
· High sensitivity temperature sensor, fast response
· Highly reliable sensor, long life, high reliability
· Reed switch test
· Auto-diagnostic capability
· Fire LED allows 360° viewing
· Option to switch off polling LED avoiding light interference
· Built in alarm output circuit, each detector can connect to a remote indicator C-9314P and BP-9314

## DB-M01

Common Detector Base
Waterproof design

## C-9314P

Remote Indicator

## BP-9314

Back Plate

## DI-M9300

**Digital Single Input Module**

DI-M9300 is used to connect the equipment which provides normally open or normally closed dry contact output signals, such as Flow Switch, Zonal Valve, Fire Pump, etc. Once the module detects the action of the equipment, a signal will be sent to the fire alarm control panel.

· Miniaturized design, suitable for centralized installation
· Din-Rail mount or Surface mount
· Monitor normally open or normally closed dry contact input signal
· Input port monitored with 4.7K EOLR
· Electronic addressed, easy to rewrite on site
· Loop powered, low power consumption

## DI-M9301

**Digital Single Input and Output Module**

DI-M9301 is used to connect equipment which needs to be the controlled by fire alarm control panel, such as elevator, fire door，etc. It also can receive the action signal from the controlled equipment and send it to the fire alarm control panel.

· Miniaturized design, suitable for centralized installation
· Din- Rail mount or surface mount
· Normally open dry contact output with cable monitoring function
· Monitor normally open or normally closed contact input signal
· Input port monitored with 4.7K  EOLR
· Input port co-operates with output or works individually
· Electronic addressed, easy to rewrite on site
· Occupy one or two loop addresses
· Loop powered, low power consumption

## DI-M9305

**Digital Single Riser Output Module**

DI-M9305 is designed to connect conventional VADs or notification devices and switch on/off the supply to end devices.

· Miniaturized design, suitable for centralized installation
· Din-Rail mount or surface mount
· Relay capacity 2A@30VDC or maximum 60W 70V/100V audio speakers
· Supervised input and output port cable
· Double-contact relay switching 2 lines together
· Electronic addressed, easy to rewrite on site
· Powered by loop and external power input
· Low power consumption

## DI-M9319

**Digital Zone Monitor Module**

DI-M9319 is designed to connect conventional detectors into an addressable system. When any device reports fire signal, the module will transmit the signal to the fire alarm control panel which generates a fire alarm and displays the address of the module

· Miniaturized design, suitable for centralized installation
· Din-Rail mount or surface mount
· Input port cable monitoring with 4.7K EOLR
· Maximum 30 conventional detectors or manual call points can be connected to each module
· Provides a FORM-C dry contact output with the capacity of 2A @ 30VDC
· Normally-open or Normally-closed output automatically follows Input port to change state
· Two indicators for fire and fault
· Electronic addressed, easy to rewrite on site
· Powered by loop and external 24V, Monitoring power supply

## DC-M9503

**Loop Isolator Module**

DC-M9503 is Din-Rail module type isolator to be installed and terminated individually, protecting the loop by isolating the trouble part.

· LED status indicator
· Support Class A and Class B loop connection
· Maximum 128 isolators can be connected to each loop
· Maximum 50 devices between two isolators
· Automatically restore once the fault has been cleared
· Loop powered, lower power consumption

## GST-MBX22
## GST-MBX29

**Module Box**

Optional accessories for both UL and LPCB D series Din-Rail modules for centralized installation, include mounting strip and cable trunking.
GST-MBX22: 6 ～ 10 pieces modules     GST-MBX29: 12 ～ 20 pieces modules

## D-93TC1(1U)
## D-93TC2(2U)

**Din-rail Module Transparent Cover**

D-93TC1: Suitable for DC-9503E, DI-9300E, DC-M9503 and DI-M9300
D-93TC2: Suitable for DI-9301E, DI-9305E, DI-9319E, DI-M9301, DI-M9305 and DI-M9319

# UL Listed Conventional Products

## DI-M9204

### Digital Manual Call Point

DI-M9204 adopts the latest digital loop protocol, semi-flush mount type. A back box is supplied for surface mounting.

· Re-settable (non-breaking glass) via special key
· Dual activation indication
· Electronically addressed
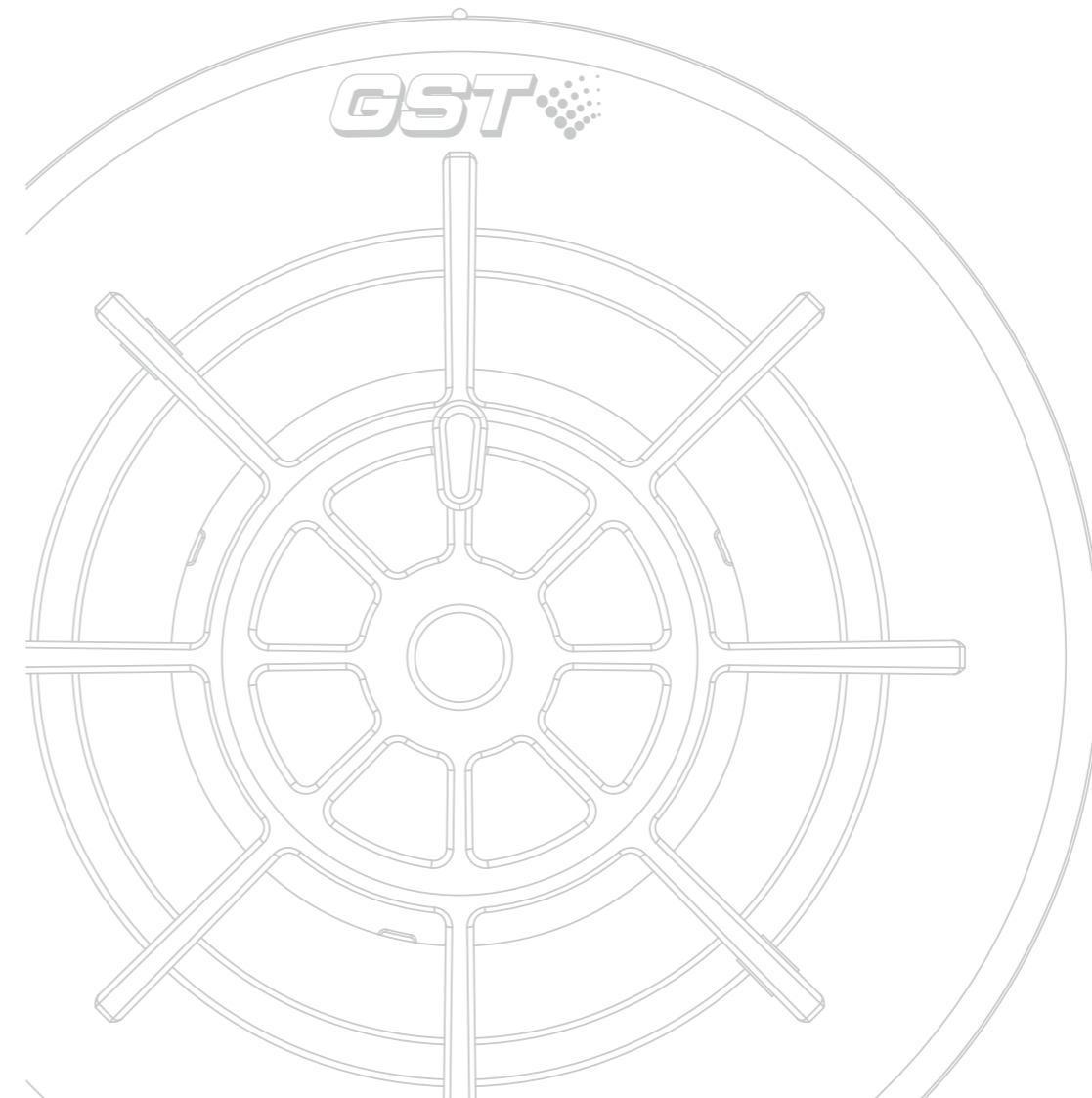· Friendly installation and test
· Wiring before termination

## DI-M9402

### Intelligent Sounder Base

DI-M9402 are compatible with GST-IFPXM series fire alarm control panels, to provide panel level synchronized audio output after activated.

· Electronically addressed
· Plugged together with DI-M910x series detectors
· Sound Pressure Level≥85dB
· Sound Frequency 3100Hz
· Loop powered, low power consumption

## DC-M910X Series Detectors

**2 wire type with low power consumption, alarm equivalent resistance 680Ω, suitable to build a fire alarm system together with UL listed conventional panels or addressable interface modules for hotel, restaurant, office building, school, bank, warehouse, library, computer room, switch room etc.**

- Strong environmental adaptability due to drift compensation
- Auto-diagnostic
- Reed switch test
- Fire LED allows 360° viewing
- Possible to switch off polling LED, avoid light interference
- Built in alarm output circuit, each detector can connect to a remote indicator C-9314P and BP-9314

## DC-M9101

**Conventional Combination Heat Photoelectric Smoke Detector**

- Smoke and heat sensor are integrated in mechanism and circuitry structure
- 2 smoke sensitivity levels can be set
- Heat detection is based on FT

## DC-M9102

**Conventional Photoelectric Smoke Detector**

- Light scattering technology with high performance chamber
- Suitable for detecting slow burning or smoldering fires

## DC-M9103

**Conventional Rate of Rise and Fixed Temperature Heat Detector**

- Semiconductor heat sensor
- Dual Rate-of-Rise and Fixed-Temperature
- Rate-of-Rise detection can be disabled by programmer

## DB-M01

Common Detector Base
Waterproof Design

## C-9314P

Remote Indicator

## BP-9314

Back Plate

## DC-M9413R(Red)
## DC-M9413W(White)

**Wall Mount Sounder Strobe**

·   Configure dB output, sounder signal, and strobe signal output as per environment
·   15 to 110 candela output, selectable user-friendly switch on the side of the device
·   The candela output switch remains clearly visible after final installation, staying locked in place to prevent unauthorized tampering.
·   Synchronized operation requires connection to a NAC output, set to Synch Mode or to a DC-M9410 Signal Synchronization Module
·   Comply with UL464, UL1638, UL1971

## DC-M9414R(Red)
## DC-M9414W(White)

**Wall Mount Sounder**

·   Configure dB output as per environment.
·   Temporal or steady sounder output selectable
·   Synchronized operation requires connection to a NAC output, set to Synch Mode or to a DC-M9410 Signal Synchronization Module
·   Comply with UL 464

## DC-M9415R(Red)
## DC-M9415W (White)

**Wall Mount Strobe**

·   Field-configurable switch for desired candela output.
·   Field-configurable jumper for the strobe signal output.
·   Synchronized operation requires connection to a NAC output, set to Synch Mode or to a DC-M9410 Signal Synchronization Module
·   Comply with UL1638, UL1971

## DC-M9416R(Red)
## DC-M9416W(White)

**Ceiling Mount Sounder Strobe**

·   Field-configurable for desired dB output, temporal or steady sound output and strobe signal output
·   Field-configurable switch for desired candela output
·   Synchronized operation requires to connect it to a NAC output set of
·   Synch Mode, or to a DC-M9410 Signal Synchronization Module
·   Comply with UL464, UL1638, UL1971

## DC-M9410

**Signal Synchronization Module**

### DC-M9204

**Innovation Manual Call Point**

DC-M9204 can be used with a compatible conventional fire alarm control panel or addressable modules to send out alarm signal by pressing the glass if there is a fire.

· Re-settable (non-breaking glass) via special key
· Dual activation indication
· Friendly installation and test
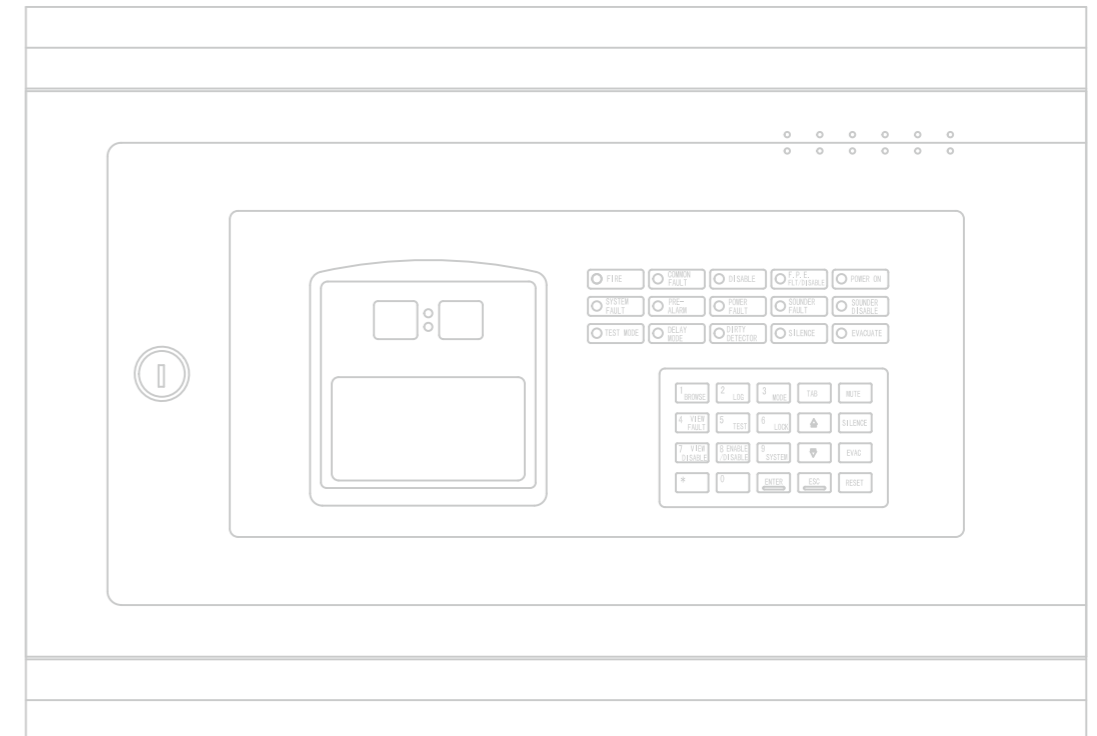· Semi-flush mount, with a back box for surface mount

### DC-M9402

**Conventional Sounder Base**

DC-M9402 is compatible with GST-IFPXM series fire alarm control panels, driven by panel NAC output or DI-M9305 single riser module output providing synchronized audio output after activated.

· Both DC-M910x and DI-M910x compatible
· Sound Pressure Level≥85dB
· Sound Frequency 3100Hz

# EN54 Addressable Products

## GST-IFP8
Intelligent Fire Alarm Control Panel

GST-IFP8 is a modularized, multi-loops fire alarm control panel. It is capable to expand to 8 loops, network up to 100 panels via class A and 240 panels via class B, perfect for small, medium and large projects.

LPCB

CE

- 15*40 LCD display
- Max. 999 zones, up to 140 with own alarm, fault/disable LEDs
- Non-Volatile Memory
- 3 alarm outputs, sounder/F.P.E/Alarm Routing
- Built-in sounder output 1A/24V
- Detector dirty report
- PAS and acknowledge function
- Multiple interface options: RS232, RS485, TCP/IP, CAN
- Built in printer
- Non-volatile memory ensures data is not lost even if power supply is accidentally removed

### Models

- GST-IFP8
- GST-IFP8-PT
- GST-IFP8-HU
- GST-IFP8-FR
- GST-IFP8-IT
- GST-IFP8-SP
- GST-IFP8-TK

- English
- Portuguese
- Hungarian
- French
- Italian
- Spanish
- Turkish

### LCIFP8
Dual-Loop Card For additional loops

### P-9935
RS232 card for PC connection

### P-9904
USB Printer Interface

### P-9935ModBus
ModBus Card for 3rd party interfacing

### P-9965A
CAN Class A Network Card

### P-9935TCPIP
TCP/IP Network Card

### P-9965
CAN Class B Network Card

### P-9945RP
RS485 Repeater Card

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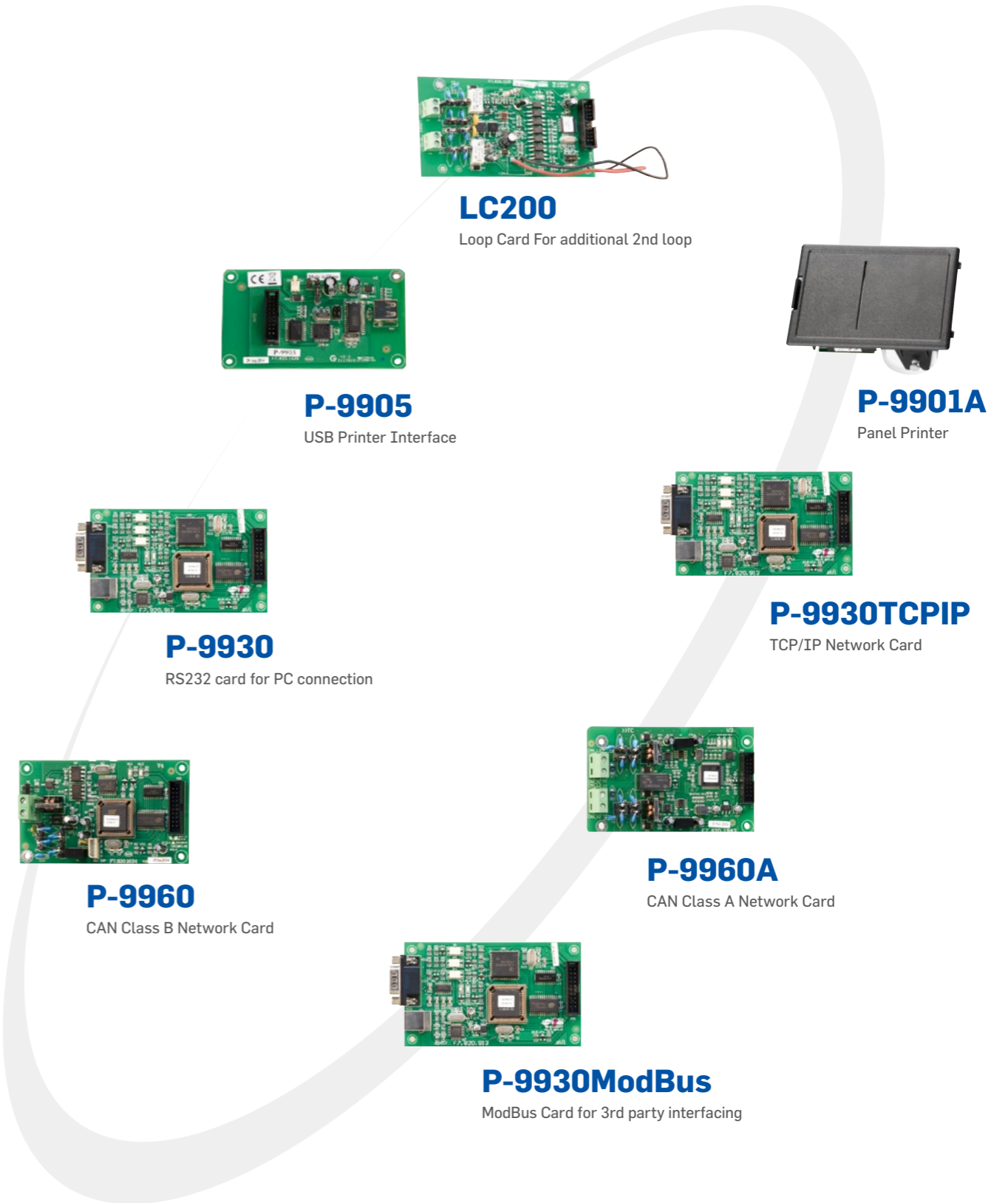
## GST200N
Intelligent Fire Alarm Control Panel

GST200N Series includes GST200N-1for 1 loop and GST200N-2 for 2 loops, capable to network up to 100 panels via class A and 240 panels via class B. It is designed  for small buildings like office, restaurant, store, shop, etc., provide simple installation, operation, and easy maintenance.

- · 8 lines LCD display
- · Wide range power supply unit: 100-240VAC 50/60Hz
- · Non-Volatile Memory
- · 30 zones with own alarm, fault/disable LEDs
- · Manual buttons for each zone, to activate/silence sounder strobes
- · Built-in sounder output, F.P.E output, alarm output
- · Configurable N/O, N/C or 0.5A/24V
- · Detector dirty report
- · PAS and acknowledge function
- · Walk test
- · Built in RS485 repeater output (max. 10 repeaters)
- · Modbus interface for BMS connection

### Models

- · GST200N-1
- · GST200N-2
- · GST200N-HU
- · GST200N-PT
- · GST200N-SP
- · GST200N-IT
- · GST200N-FR
- · GST200N-TK
- · GST200N-RO

- · Single loop, English
- · Dual loops, English
- · Single loop, Hungarian
- · Single loop, Portuguese
- · Single loop, Spanish
- · Single loop, Italian
- · Single loop, French
- · Single loop, Turkish
- · Single loop, Romanian

**LC200**
Loop Card For additional 2nd loop

**P-9905**
USB Printer Interface

**P-9901A**
Panel Printer

**P-9930**
RS232 card for PC connection

**P-9930TCPIP**
TCP/IP Network Card

**P-9960**
CAN Class B Network Card

**P-9960A**
CAN Class A Network Card

**P-9930ModBus**
ModBus Card for 3rd party interfacing

## GST100
Intelligent Fire Alarm Control Panel

Minimized single loop addressable fire panel, designed in accordance with EN54-2 standard, to achieve simple installation, operation and maintenance, which make it ideal for smaller systems.

- Maximum 8 detection zones, each with independent fire LED, fault/disable LED and zone label
- Class A loop, maximum capacity of 128 addressable devices
- 122×32 lattice LCD assisting the LED indicators to display important information
- Non-volatile memory ensuring system data not lost on shutdown of power
- 3 relay outputs available which are SOUNDER OUTPUT (R+ and R-), ALARM OUTPUT and FAULT OUTPUT

## GST-NRP00
Network Repeater Panel

GST-NRP00 Network Repeater Panel is based on GST network technology, providing remote control and indication of the fire alarm system.

- Provide remote display and control of system
- Password protected access levels
- 8X18 characters LCD screen
- 15 LEDs to display important information
- Functional control of network panels
- Network-wide operation: Acknowledge, Silence, Reset
- Flush-mount or surface-mount structure
- Meet network protocol by selecting suitable network network card

### P-9943
RS485 Communication Card

For connecting repeater panel or network

### P-9960
CAN Class B Network Card

### P-9960A
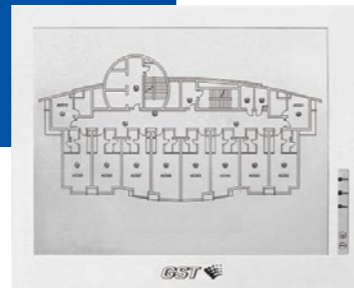CAN Class A Network Card

## GST852RP
LCD Repeater Panel

A remote indication unit through LCD screen for GST addressable system.In case of fire, it will display the fire type, time and location details together with sound for local notification.

· Large LCD display with backlight
· Mute and lamp test
· Electrically addressing
· RS485 network

## GST8903
Intelligent Graphic Repeater Panel

A remote indication through graphic layout for the GST addressable system, also known as the MIMIC panel. In case of fire or fault, a message will be displayed indicating the specific position within the layout drawing, providing a clear view of the exact location.

· Up to 100 LED indication points
· Local buzzer alarm and mute
· Customized graphical layout to project requirement
· Programmable to display zones or individual device
· Programmable to indicate Fire, Action and Fault conditions
· RS485 network
· A3, A2, A1 sizes

## DI-910XE Series Detectors

**Adopt the latest digital loop protocol, compatible with GST LPCB listed intelligent fire alarm control panels. With digital communication, the detectors can raise fast alarm signal within seconds, with full features, suitable for hotel, restaurant, office building, school, bank, warehouse, library, computer room, switch room etc.**

## DI-9101E
## DI-9101E-B

**Intelligent Combination Heat Photoelectric Smoke Detector**

· Electronic addressed, easy to rewrite on site
· Drift compensation, strong environmental adaptability, anti-pollution ability
· Dual FT& RoR fire alarm by semiconductor heat sensor analyzing temperature status
· Heat Detection: Class A2R
· Fire LED allows 360° viewing
· Option to switch off polling LED avoid annoying
· 2 levels sensitivities programmable
· Reed switch test, Self-diagnostic for sensor fault and optical chamber dust
· Easy for maintenance.
· Built in alarm output circuit, each detector can connect to a remote indicator C-9314P
· LPCB approved at EN 54-7 and EN 54-5
· White and Black color options

## DI-9102E

**Intelligent Photoelectric Smoke Detector**

· Electronic addressed, easy to rewrite on site
· Drift compensation, strong environmental adaptability, anti-pollution ability
· Fire LED allows 360° viewing
· Option to switch off polling LED avoid annoying
· 2 levels sensitivities programmable
· Reed switch test for easy test
· Self-diagnostic capability
· Removable innovative sensing chamber, easy for maintenance.
· Built in alarm output circuit, each detector can connect to a remote indicator C-9314P
· LPCB approved at EN 54-7

## DI-9103E

**Intelligent Rate of Rise and Fixed Temperature Heat Detector**

· Electronic addressed, easy to rewrite on site
· Dual FT and RR fire alarm by semiconductor heat sensor analyzing temperature status
· A1R, A2S, BS, 3 detection class programmable
· High sensitivity temperature sensor, fast response
· Highly reliable sensor, long life, high reliability
· Reed switch test for easy test
· Self-diagnostic capability
· Fire LED allows 360° viewing
· Option to switch off polling LED avoid light interference
· Built in alarm output circuit, each detector can connect to a remote indicator C-9314P
· LPCB approved at EN 54-5

## DB-01
## DB-01B

**Common Detector Base**
Waterproof weep hole design

## DC-9504E

**Base Mount Isolator**
DC-9504E is a base type isolator, to use with DI series detectors replacing DB-01, providing detector based trouble isolation
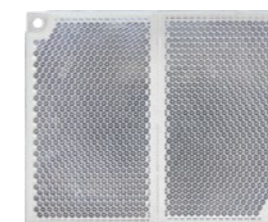
## C-9314P

**Remote Indicator**

## DI-9105E

**Intelligent Reflective Beam Detector**

Built-in microprocessor to reach high sensitivity application, suitable to historical buildings, warehouses, large storages, shopping malls, leisure centers, exhibition halls, hotel lobbies, printing houses, clothing factories, museums, and prisons.

· Loop powered
· Electronic addressed, easy to rewrite on site
· Wide operating voltage range, large monitoring areas
· Built-in laser pointer and digital tube display facilitate the alignment between detector and the reflector, and greatly improve the on-site commissioning efficiency
· Combination of the emitting and receiving parts makes mounting easy and optical pathway accurate
· Intelligent self-adjustment, drift compensation of ambient data, such as dust accumulation, positional excursion, and ageing transmitter
· Intelligent auto-judgment about fire alarm and fault
· Self-diagnostic function can monitor the internal fault
· 4 sensitivity levels can be set in field to suit different applications
· Ingress protection is up to IP66 through glue-seal treatment for special environment applications
· Attractive appearance

## RF-9105R

**Reflector**

## DI-9300E

**Digital Single Input Module**

DI-9300E is used to connect the equipment which provides normally open or normally closed dry contact output signal, such as Flow Switch, Zonal Valve, Fire Pump etc. Once the module detects the action of the equipment, it will send the signal to the fire alarm control panel.

- Miniaturized design, suitable for centralized installation
- Din-Rail mount or surface mount
- Monitor normally open or normally closed dry contact input signal
- Input port monitored with 4.7K EOLR
- Electronic addressed, easy to rewrite on site
- Loop powered, low power consumption

## DI-9301E

**Digital Single Input and Output Module**

DI-9301E is used to connect the equipment which needs to be controlled by fire alarm control panel, such as elevator, fire door etc. It also can receive the action signal from the controlled equipment and send it to the fire alarm control panel.

- Miniaturized design, suitable for centralized installation
- Din- Rail mount or surface mount
- Normally open dry contact output with cable monitoring function
- Input port monitors either normally open or normally closed dry contact
- Input port co-operates with output or works individually
- Input port monitored with 4.7K EOLR
- Electronic addressed with 1-2 address options, easy to rewrite on site
- Loop powered, low power consumption

## DI-9302E

**Digital High Voltage Relay Module**

DI-9302E provides output capacity 220VAC/5A, suitable to connect the high voltage equipment being controlled by the fire alarm control panel.

- Miniaturized design, suitable for centralized installation
- Din-rail mount or surface mount
- Input port monitors either normally open or normally closed dry contact.
- Special onboard relay test button to test relay action instead of being operated from FACP
- High voltage terminals are covered by transparent cover protecting from electric shock
- Input port can be programmed "self-answering"
- Electronic addressed with 1-2 address options, easy to rewrite on site
- Using GST-IFPxE series Panel, invert mode or normal mode can be set
- Loop powered, low power consumption

## DI-9305E

**Digital Single Riser Output Module**

DI-9305E is designed to connect conventional VADs or notification devices, to switch on and off the supply to end devices.

- Miniaturized design, suitable for centralized installation
- Din-Rail mount or surface mount
- Relay capacity 2A@30VDC or maximum 60W 70V/100V audio speakers
- Supervised Input and Output port cables
- Double-contact relay switching 2 lines together
- Electronic addressed, easy to rewrite on site
- Powered by loop and external power input
- Low power consumption

## DI-9319E

**Digital Zone Monitor Module**

DI-9319E is designed to connect conventional detectors into an addressable system. When any device reports a fire signal, the module will transmit the signal to the fire alarm control panel.

- Din-rail mount or surface mount
- Input port cable monitoring with 4.7K EOLR
- Maximum 30 conventional detectors or manual call points can be connected to each module
- Provides a FORM-C dry contact output with the capacity of 2A @ 30VDC
- Normally-open or normally-closed output automatically follows Input port to change state
- Two indicators for fire and fault
- Electronic addressed, easy to rewrite on site
- Powered by loop and external 24V, monitoring power supply

## DC-9503E

**Loop Isolator**

DC-9503E is Din-rail module type isolator to be installed and terminated individually, preventing the whole loop from the troubled part.

- Isolates faulty part of the loop in the event of a short circuit
- Automatically restores once the fault has been cleared
- LED status indicator
- Support Class A and Class B loop connection
- Maximum 128 isolators can be connected to each loop
- Maximum 50 devices between two isolators
- Loop powered, lower power consumption

## DI-9309

**Addressable Multi-Channel Interface**

DI-9309 provides an integrated solution for application of multi-input signals, saving mounting space and installation cost.

- Max. 16 channels of independent inputs. The quantity can be set by jumpers as required
- Two channels of independent dry contact outputs
- 3-18 consecutive addresses, changing with selected channel quantity
- Monitored power supply
- Monitored cable for open circuit and short circuit

## I-9401N

**Addressable Sounder Strobe**

- Electronic addressed, easy to rewrite on site
- Red Plexiglas lens, hi-light red, striking, long-life
- Sound level over 80dB
- Plug in structure for easy installation

## I-9403/I-9404

**Intelligent Sounder Strobe/ Sounder**

- Electronic addressed, easy to rewrite on site
- Two parts construction with base mounted termination allows easy installation
- 16 programmable alarm tones
- Optional Evacuate + Alert mode
- Optional loop powered or external 24VDC powered
- Optional power saving mode or normal mode
- I-9403 has High intensity LED cluster
- I-9403 can program work in Light or Sound or Light plus Sound

## C-94DB

**Deep Base**

Use with I-9403, I-9404, C-9403, C-9404 for Surface Cable Entry.

## DI-9405/DI-9406

### Addressable Sounder Base / Flashing Beacon Base

DI-9405/DI-9406 are base mount types, easily inserted between the detector and base without cabling, to produce a sound and light alert in case of receiving command from FACP, saving the cost of installation and wiring.

- Electronic addressed, easy to rewrite on site
- Sandwich structure for easy installation. No additional cable required
- Loop powered
- Three programmable modes，Share 1 address with detector or individual control in single-address / double-address mode
- 16 selectable tones
- Used with D series detectors and bases
- Bright red high-intensity, 1Hz frequency flash light (DI-9406 model)"

## DI-9204E

### Digital Manual Call Point

- Incorporates digital loop protocol, fast and reliable
- Re-settable (non-breaking glass) via special key
- Dual activation indicator
- Electronic addressed, easy to rewrite on site
- Plug-in structure, easy installation and maintenance
- Semi-flush mount type with a back box for surface mount

## D-92WPB

### Waterproof Box

- IP65 cover offers full protection of manual call point
- Meets the requirement of 2 step Operation
- Clear and durable PC cover
- Surface mounting enables the easy installation
- 60mm hole distance and enough internal space for most types of MCP
- Reserved location for additional micro-switch, battery, buzzer, etc
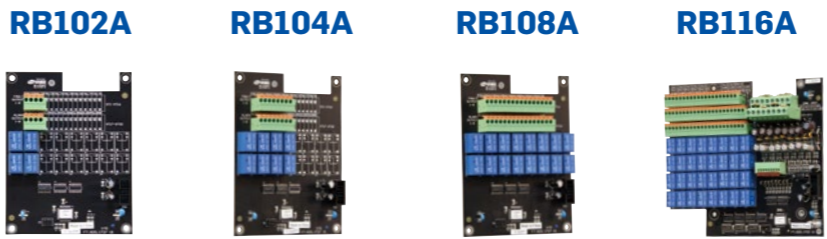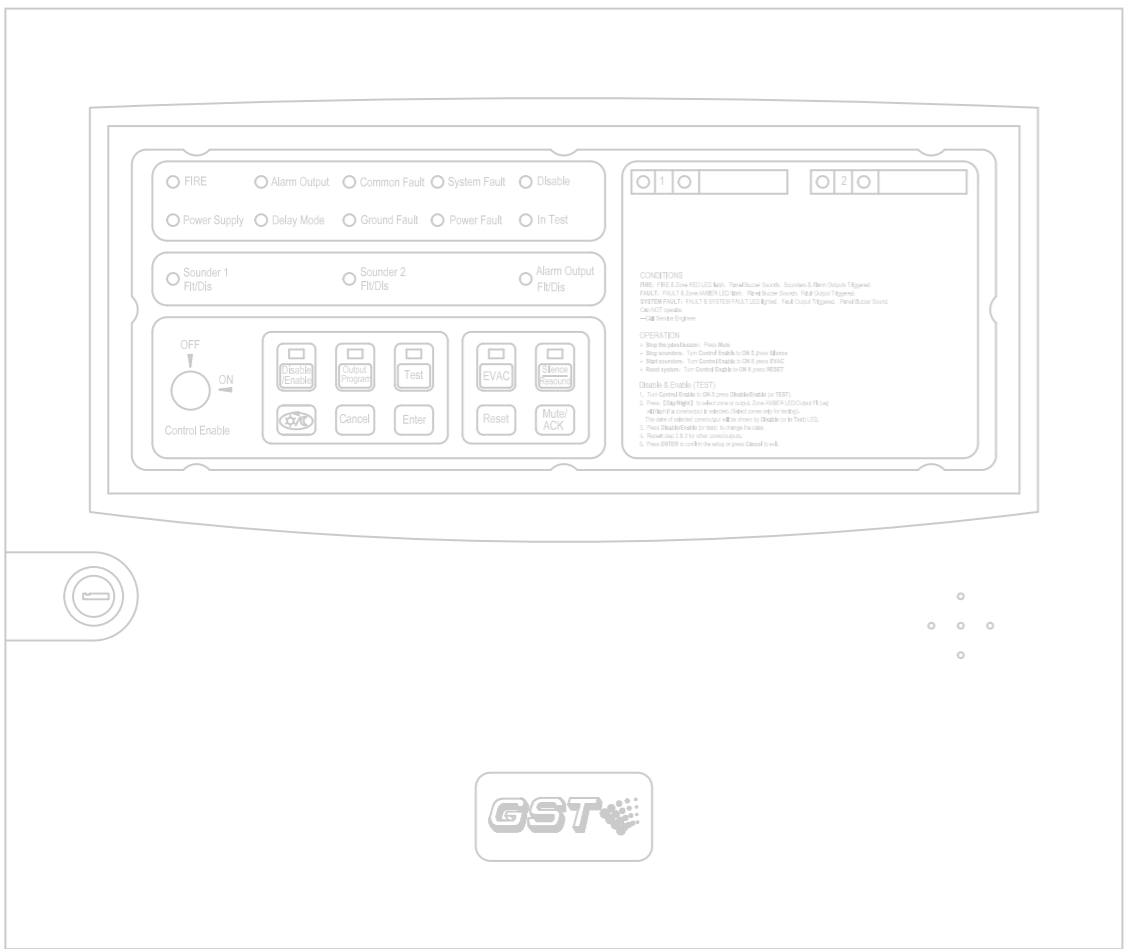
## D-92FC

### Flip Cover

- Material: PMMA
- Suitable with D series manual call point for double action
- Prevent from accident trigger
- Dimension: 87 X 92 X 20 (mm)
- Thickness: 1.7mm

# EN54 Conventional Products

**GST102A**　　**GST108A**
**GST104A**　　**GST116A**

- Mains supply, 220/230VAC, 50/60Hz
- 2,4,8 or 16 zones, Each zone can have maximum 32 conventional detectors
- Compatible with GST conventional products
- Options to program supervisory zones, with individual supervisory indicator and supervisory relay output
- Provide fire, fault, aux. power, sounder output and disablement relay output
- Integrated charger and battery management program, fully complies with EN54-4 standard
- Easy operation to enable/disable zones, sounder outputs and alarm output
- Output programmable for interlink between zones and sounder outputs, alert or evacuate tone, with or without delay
- Alarm output and Fault output are available for integrating into third-party system
- Reserved repeater panel interface for fire alarm indication of multiple zones
- With AEOL solution to keep cable continuity even with detector removed
- Optional relay board to provide zone wised fire/fault relay output

**RB102A**　　**RB104A**　　**RB108A**　　**RB116A**

Relay Board for  GST102/4/8/116A

## GST101

**1 Zone Conventional Fire Alarm Panel**

·   Mains supply, 220/230VAC, 50/60Hz
·   Maximum 15 conventional detectors,  non-limited manual call points
·   Available sounder and fault output
·   Indicate normal status, fault, alarm and check cables for short or broken circuit
·   Integrated management program for charger and battery

## GST-RP16

**Conventional Repeater Panel**

·   Compatible with GST102A/4A/8A/16A
·   Powered from FACP directly
·   Provide Zonal Fire and general Fault indication
·   Maximum 16 zones with fire signal
·   Direct connecting, easy commissioning

## DC-910XE Series Detectors

**Have built-in microprocessor, are highly fixed with reliable fire judging program, ensuring stable and reliable performance, with the new designed smoke chamber and intelligent program, suitable for hotels, restaurants, office buildings, schools, banks, warehouses, libraries, computer rooms, switch rooms, etc.**

·   Strong environmental adaptability due to drift compensation
·   Self-diagnostic
·   Reed switch test
·   Fire LED allows 360° viewing
·   Possible to switch off polling LED avoid annoying
·   A remote indicator C-9314P can be connected to each detector

## DC-9101E
## DC-9101E-B

**Conventional Combination Heat Photoelectric Smoke Detector**

·   Smoke and heat sensor are integrated in mechanism and circuitry structure
·   2 smoke sensitivity levels can be set
·   Heat Detection: Class A2R

## DC-9102E

**Conventional Photoelectric Smoke Detector**

·   Light scattering technology with high performance chamber
·   Suitable for detecting slow burning or smoldering fires
·   2 smoke sensitivity levels can be set

## DC-9103E

**Conventional Rate of Rise and Fixed Temperature Heat Detector**

·   Semiconductor heat sensor
·   Dual Rate of Rise and Fixed Temperature
·   3 detection classes can be set A1R, A2S & BS

## DB-01
## DB-01-B

**Common Detector Base**
Associated with D series detectors
Color options: White and black

## DB-01D

**Diode Detector Base**

## DP-9907

**Active End of Line**
DP-9907 associated with DB-01D for Conventional System, to keep loop
continuity while a detector is removed
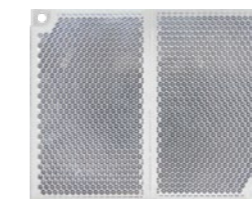
## C-9314P

**Remote Indicator**

## DC-9105E

**Conventional Reflective Beam Detector**

Built-in microprocessor to reach high sensitivity application, suitable to historical
buildings, warehouses, large storages, shopping malls, leisure centers, exhibition halls,
hotel lobbies, printing houses, clothing factories, museums, and prisons.

- 24V powered
- Wide operating voltage range for monitoring large areas
- Built-in laser pointer and digital tube display facilitate the alignment between the
  detector and the reflector, and greatly improve the on-site commissioning efficiency.
- Built-in normally open fire relay and normally closed fault relay dry contact output
- Combination of the emitting and receiving part makes mounting easy and optical
  pathway accurate
- Intelligent self-adjustment, drift compensation of ambient data, such as dust
  accumulation, positional excursion, and ageing transmitter
- Intelligent fire alarm and fault auto-judgment
- Self-diagnostic function can monitor the internal fault
- 4 sensitivity levels can be set in field to suit different applications
- Ingress protection is up to IP66 through glue-seal treatment for special
  environment applications
- Attractive appearance

## RF-9105R

**Reflector Plate**

## C-94XX Series Sounder Strobes

**Are notification devices, provide audile/visual warning signals to draw attention or evacuate in case of emergency.**

### C-9401N

**Conventional Sounder Strobe**

- 24VDC powered
- Red plexiglas lens, hi-light red, striking, long-life
- Sound level over 80dB
- Two-part plug-in structure for easy installation

### C-9403/C-9404

**Conventional Sounder Strobe/Sounder**

- Two-part construction with base mounted termination allows for easy installation
- 2 selectable alarm tones
- Strobe provided by high intensity LED cluster

### C-94DB

**Deep Base**

Use with I-9403, I-9404, C-9403, C-9404 for Surface Cable Entry

## GST-JL

**Alarm Bell**

Suitable for factories, workshops, hotels etc. to provide clear and continuous alarm sound.

- 24VDC power, 23mA operation
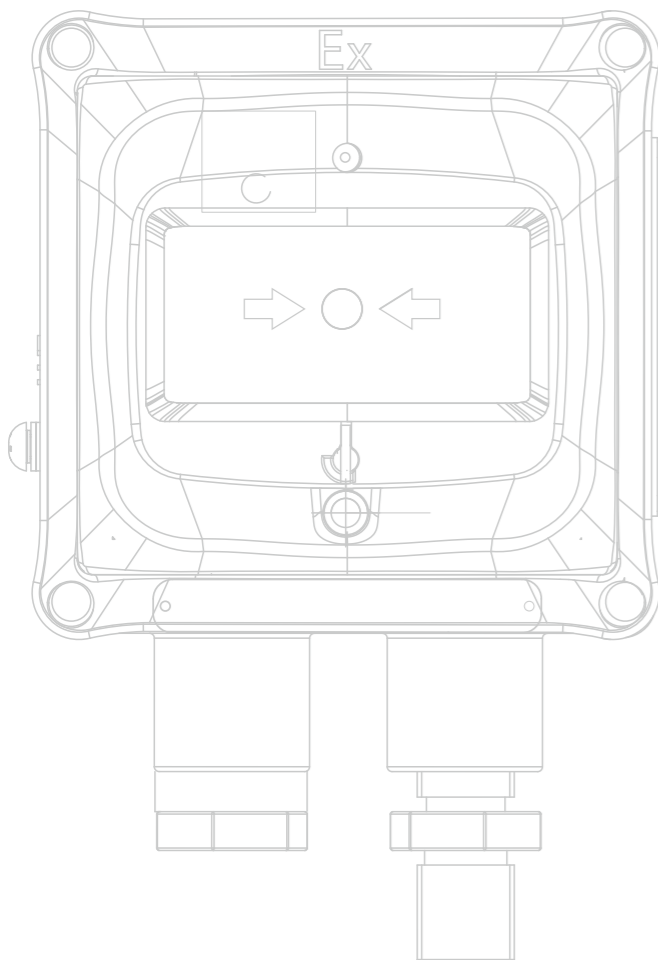- 6" bell, 95dB@3m

## DC-9204E

**Innovation Manual Call Point**

- Non-addressable, alarms by pressing the glass
- Re-settable (non-breaking glass) via special key
- Dual activation indication
- Friendly installation and test
- Wiring before termination

# Explosion Proof Products

## DI-9204Exd
Digital Flame-proof Manual Call Point

DI-9204Exd is applicable to vessels, Zone 1 and 2 of explosive gas atmosphere and explosive dust atmosphere. It is also suitable for outdoor applications.

- Work either in addressable or conventional mode
- Operating Voltage: 24V
- Ingress Protection: IP65
- Material: ZL102 aluminum alloy, red
- Dimension: 211mm x 129mm x 95mm
- Ex Mark: ⟨Ex⟩ II 2 G  Ex db IIB T6 Gb,-40°C≤Ta≤+70°C
           ⟨Ex⟩ II 2 D Ex tb IIIC T80°C Db
- ATEX Certificate: Presafe 14 ATEX 5549X

Ex

## D-9105RExd
Digital Flame Proof Reflective Beam Detector

D-9105RExd is applicable to either commercial areas or hazardous industrial areas, such as Zone 1 and 2 of explosive gas areas and Zone 21 and 22 of combustible dust areas.

- Work either in addressable or conventional mode
- Operating Voltage: 24V
- Ingress Protection: IP66
- Material: Stainless steel, metallic gray
- Dimension: 344mm x 240mm x 212mm
- Ex Mark: Ex dIIC T6 Gb/Ex tD A21 IP66 T85°C
- Ex Certificate: CE16.1388X
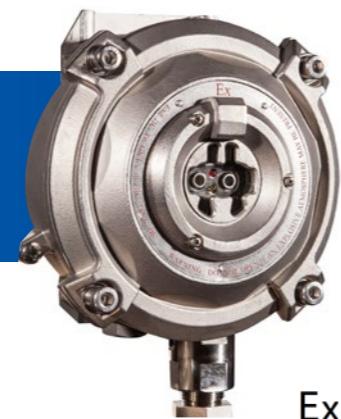
Ex

## DI-9104Exd
Digital Flame Proof UV Flame Detector

DI-9104Exd detects fire by picking up the ultraviolet light from flaming material. It's designed for areas where an open fire is liable to occur due to a large amount of radiation and no smoldering stage. This detector can be applicable to zone 1 and 2 of explosive areas.

· Work either in addressable or conventional mode
· Operating Voltage: 24V
· Ingress Protection: IP66
· Material: ZL102 aluminum alloy, silvery grey
· Dimension: 147mm x 106mm x 92mm
· Ex Mark: ⟨Ex⟩ Ex d IIC T6 Gb
· ATEX Certificate: Presafe 14 ATEX 5547

Ex

## D-9107RExd
Digital Flame Proof Dual IR Flame Detector

D-9107RExd uses two pyroelectric infrared sensors to detect the change of light signal of flame and background light signal at two bands of infrared spectrum through individual processing channels. The detector is applicable to explosive Zone 1 and 2, and flammable dust atmosphere.

· Work either in addressable or conventional mode
· Operating Voltage: 24V
· Ingress Protection: IP65
· Material: Stainless steel, metallic gray
· Dimension: 166mm x 235mm x 199mm
· Ex Mark: ⟨Ex⟩ II 2 G Ex db IIC T6 Gb /
          ⟨Ex⟩ II 2 D Ex tb IIIC T80°C Db
· ATEX Certificate: Presafe 14 ATEX 5548X

Ex

## DC-910X(IS) Series Detectors

**Are applicable to Zone 1 and Zone 2 of areas with explosion-proof requirements in petroleum and chemical industries.**
**With an explosion proof interface I-9332, the detectors can be connected into the GST addressable system. Max.10 pieces (mixed) can be linked to each interface.**

· Strong environmental adaptability due to drift compensation
· Self-diagnostic
· Reed switch test
· Fire LED allows 360° viewing

Ex

### DC-9101(IS)

**Intrinsically Safe Combination Heat Photoelectric Smoke Detector**

· 3 smoke sensitivity levels
· FT and RR
· Ex Mark: Exib II CT6 Gb
· Ex Certificate: CE21.0155

Ex

### DC-9102(IS)

**Intrinsically Safe Photoelectric Smoke Detector**

· Integrated algorithm for high sensitivity
· Ex Mark: Exib II CT6 Gb
· Ex Certificate: CE21.2424

Ex

### DC-9103(IS)

**Intrinsically Safe Rate of Rise and Fixed Temperature Heat Detector**

· BS and A1R
· Ex Mark: Exib II CT6 Gb
· Ex Certificate: CE22.3906

### DB-01(IS)

**Intrinsically Safe Detector Base**

## GST Intrinsically Safe Conventional Notification

**Suitable to Zone 1 and Zone 2 of areas with explosion-proof requirements in petroleum and chemical industries. With Intrinsically Safe Interface, these conventional devices can be connected into the GST addressable system.**



### DC-9202(IS)

**Intrinsically Safe Conventional Manual Call Point**

Ex Mark: Exib II CT6 Gb
Ex Certificate: CE21.0157

### DC-9403(IS)

**Intrinsically Safe Conventional Sounder Strobe**

Ex Mark: Exib II CT6 Gb
Ex Certificate: CE22.3905

### DC-9404(IS)

**Intrinsically Safe Conventional Sounder**

Ex Mark: Exib II C T6 Gb
Ex Certificate: CE22.3907

### I-9332

**Intrinsically Safe Interface for Detectors/Manual Call Point**

### I-9333

**Intrinsically Safe Interface for Sounder/ Strobe**

The Intrinsically Safe Interface connects conventional intrinsically filed devices into the GST addressable fire alarm system, reporting the alarms with address or receiving the command from the panel to activate explosion-proof devices in the field. GST Intrinsically Safe Interface provides a cost effective and reliable application for the explosive area.

· Photoelectric isolation technology for output signal, the interface is safe to use and can restrict the interference of industrial frequency
· Electronic addressing, which can be modified in field
· Microprocessor monitors running status
· Built-in safety barrier, connecting with explosion-proof devices directly
· Cast aluminum alloy, silver grey IP65
· I-9332 reports the alarms with address to panels
· I-9333 receives the command from the panel to activate explosion-proof devices in field and limit the energy limitation to the hazard area

### GST-AS-200

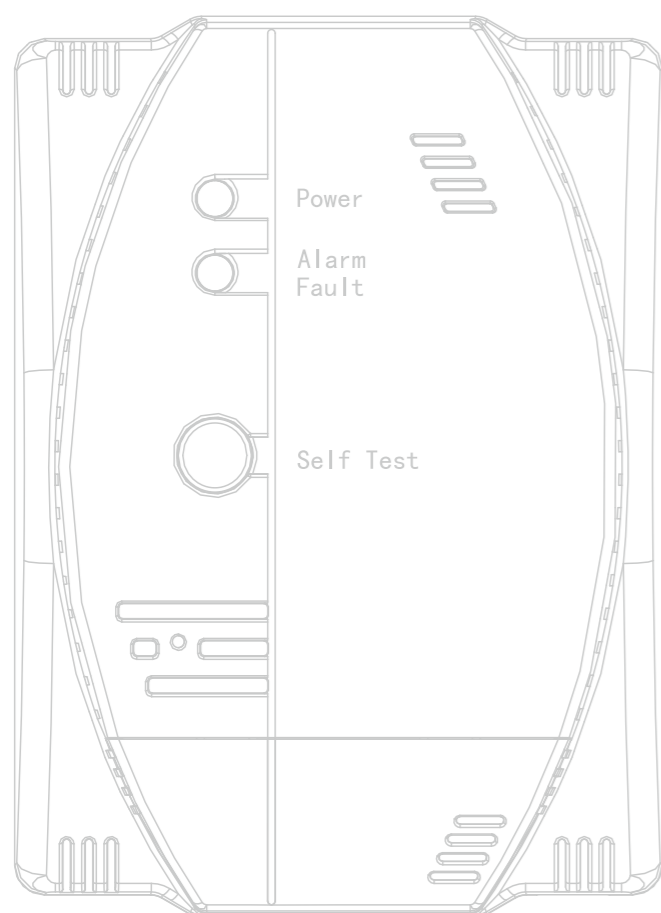**Zener Safety Barrier 1 line fused**

### GST-AS-300

**Zener Safety Barrier 2 lines fused**

Associates with intrinsically safe products to provide protection by limiting the energy into an explosive environment. It ensures the energy output always be controlled under a safe value in case of any kind of fault condition.

· Max. Output Voltage: Uo=28V
· Max. Output Current: Io=93mA
· Ex Mark: [ExibGb] II C

# Specified Detectors

## GST Gas Detectors

These devices have a built in MCU, high quality semiconductor gas sensor to achieve high sensitivity and reliability. When leakage of home use combustible gas (LPG, Natural Gas ) is detected, detectors will generate a high buzzer alert sound, and provide a dry contact to turn the exhaust fan, a 12VDC source to switch off the gas valve. Very suitable to be used in houses, hotels and apartments.

### I-9602LW-LPG
### I-9602LW-NG

**Addressable Gas Detector**
**-Liquefied Petroleum Gas**
**-Natural Gas**

· Operating Voltage: 24VDC
· Addressable: Compatible with GST FACP system
· Alarm Threshold: LPG: 2000×10-6 (10%LEL)
                             NG: 3000×10-6 (6%LEL)
· Ingress Protection: IP30

### C-9602LW-LPG
### C-9602LW-NG

**Standalone Gas Detector**
**-Liquefied Petroleum Gas**
**-Natural Gas**

· Operating Voltage: 187VAC~253VAC
· Alarm Threshold: LPG: 2000×10-6 (10%LEL)
                             NG: 3000×10-6 (6%LEL)
· Ingress Protection: IP30

## R6601
## R6602

**Conventional Smoke Detector**
**Conventional Heat Detector**

R660X series are 4-wire type detectors, usually applied to a security system, or standalone with relay output. Detectors provide a normally open contact, which will be closed when the detector alarms.

· Operating Voltage: 12VDC (9.6VDC~14.4VDC)
· Output Relay: 30VDC/1A
· Cabling Method: 4-wire, 2 for power, 2 for output
· Ingress Protection: IP23(R6601)
　　　　　　　　　　　IP33(R6602)

## S-9102R
## S-9102N

**Stand Alone Smoke Detector**

GST standalone smoke detector is battery powered with an adapting optical chamber to detect smoke produced by fire. The detector provides a high-volume sound notification in case of alarm and is suitable for small projects, such as home applications, small shops, pubs, etc.
S-9102R has a photoelectrical isolated polarized N/O contact output
S-9102N is networkable, suitable for group usage of detectors

· · Operating Voltage: 2-AA LR6 alkaline batteries
· · Battery Life: Around 3 years in normal operation
· · Detection Area: 60-100m2
· · Alarm Sound: >80dB@3m

## Ultraviolet Flame Detector

**Detects fire by analyzing ultraviolet radiation of flame. It's applicable to the places where open fire with intense flame radiation but without enough smoke happening, or where quick response to a fire is required.**

## I-9104

**Intelligent Ultraviolet Flame Detector**

· High sensitivity, reliable performance, dust-proof, damp-proof and corrosion-proof
· Three sensitivity levels
· Electronically addressed in field
· Built-in microprocessor stores 14 history data
· Auto-diagnostic

## C-9104

**Conventional Ultraviolet Flame Detector**

· High sensitivity, reliable performance, dust-proof, damp-proof and corrosion-proof
· Auto-diagnostic

## DZ-03

**Common Detector Base**

# Gas Release Control Products

Gas Extinguishing
DO NOT ENTER

## GST301

**Conventional Gas Extinguishing Control Panel**

The GST301 is a standalone gas extinguishing control panel, provides 2 conventional detection zones to achieve double knock control, and an additional standard fire detection zone for other areas. The Duty and Standby Cylinder control can be automatically- and manually-controlled controlled, with an adjustable delay timer

- Mains supply: 220/230VAC, 50/60Hz
- Backup Battery: 7AH/24VDC
- Sounder Output: 0.5A/24VDC
- Release Output: 2A/24VDC, Pulse
- Built-in PSU and charger for 24 hour standby and 30 minute activation period

## GST303( 3 zones)
## GST306( 6 zones)

**Addressable Gas Extinguishing Control Panel**

The gas panel sits directly on addressable loop, achieving extinguishing control by carrying out the intelligent equations on the fire panel.

- Mains supply: External Power Supply 24VDC
- Cylinder Output: Pulse (5s) or Continuous output, Max. 2A
- Release Indicator: 300mA/24VDC
- Sounder Output: Dry-contact, 1A/24VDC
- All cables monitored for fault of open circuit and short circuit
- Delay timer and release output period adjustable

## C-9317

**Emergency Gas Override Control**

C-9317 Emergency Gas Override Control is used to control the start and
stop of gas extinguishing system, usually installed in areas to be protected.
Self-latched buttons resettable by a special tool
A dedicated contact output for sending start signal
The start and stop buttons are protected by a glass cover to prevent from
mis-operation
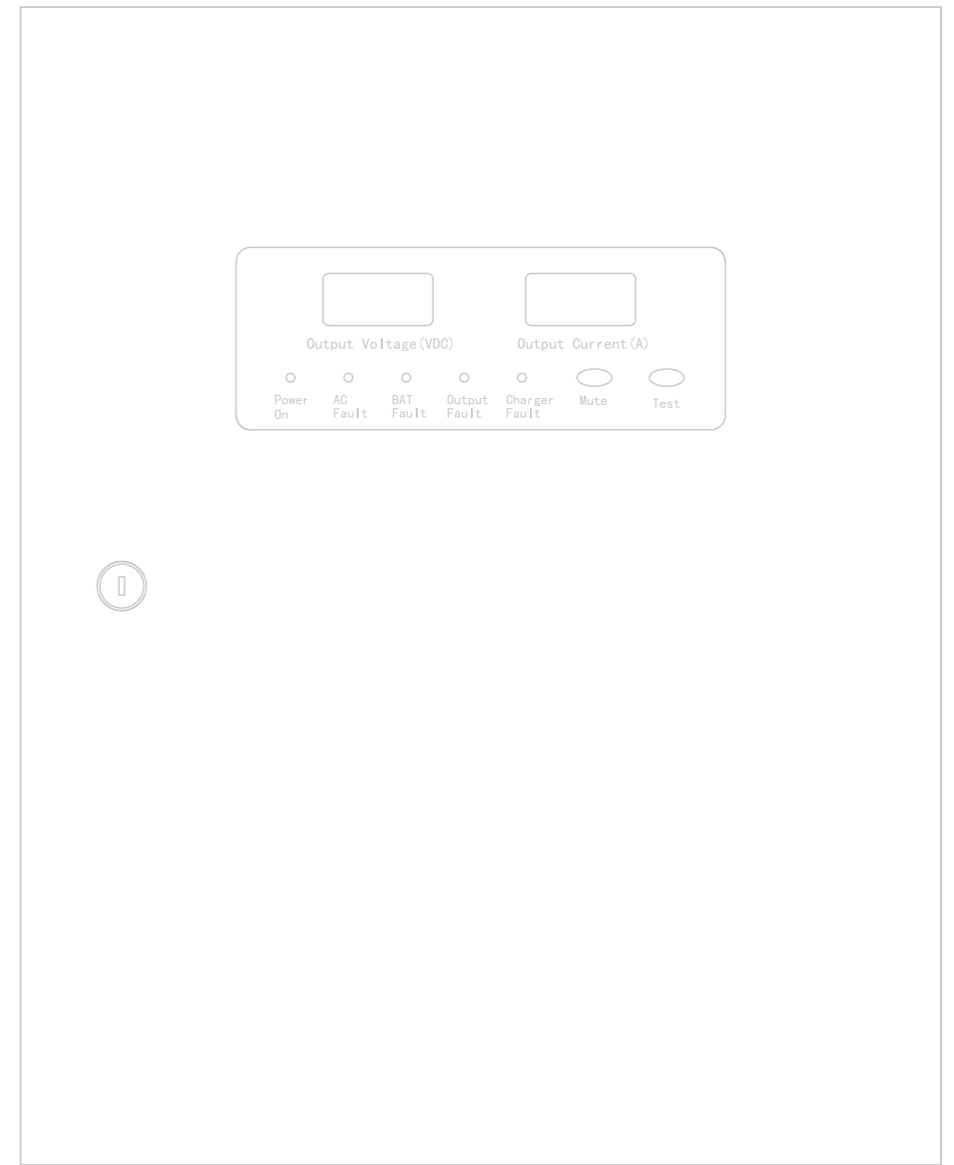
## C-9318

**Gas Extinguishing Warning Indicator**

C-9318 Gas Extinguishing Warning Indicator is the accessory of a gas
extinguishing system, usually installed above the entrance of the protected area.
Flashing Frequency:1.4Hz  20%
Material and color: Iron enclosure/ white,
with plexiglass in front/ white

## C-9329

**Gas Extinguishing Control Relay Module**

C-9329 Gas Extinguishing Control Relay Module is to use  with GST303 or
GST306 Gas Extinguishing Control Panel, to carry out gas release solenoid
control and cable monitoring.
Output contact: Rated 30VDC/ 2A
Plug-in structure for friendly application

# Tools and Accessories

Output Voltage (VDC)    Output Current (A)

Power    AC      BAT      Output   Charger   Mute      Test
On       Fault   Fault    Fault    Fault

## P-9910B
Handheld Programmer

A programming tool that can also be used to read the
parameters and set the working mode of those devices.

- Handheld unit, portable tool
- Convenient operation
- Quadruple digit alphanumeric LCD display
- Low-consumption hibernation and power saving function
- Low battery indication

## CAN100H-4/8/12/16
CAN Hub

4/8/12/16 Routes

- Communication Distance: 3000 meters
- Node capacity of each branch: 112
- Total system capacity based on panel models
- Avoids loop interference of the whole system due to isolation between trunk and branch, branch and branch

## P-9903
Loop Relay Module

P-9903 expands loop distance, also provides strong
protection for signals when the loop runs through heavy
interference area.

- Enhance loop distance and reliability
- Increase 1000 meters of loop distance
- Maximum 2 pieces of relays can be connected in serial
- Opt-isolated output signal, resistant to industrial interference
- Output supports Class B loop connection only

## CAN100F
Fiber Optic Converter

Convert CAN signal to Fiber Optic, expand
communication distance up to 25km Transmission
Medium:Single mode fiber

## CAN100S
CAN Relay

Extends CAN network distance an additional
3000 meters and node capacity to 112

## GST Intelligent Power Supply Unit  (PSU)

**GST PSU is designed to support heavy consumption applications, for the fire alarm devices requiring external 24VDC power supply. The built-in charger and maintenance-free sealed lead acid batteries ensure the standby supply.**
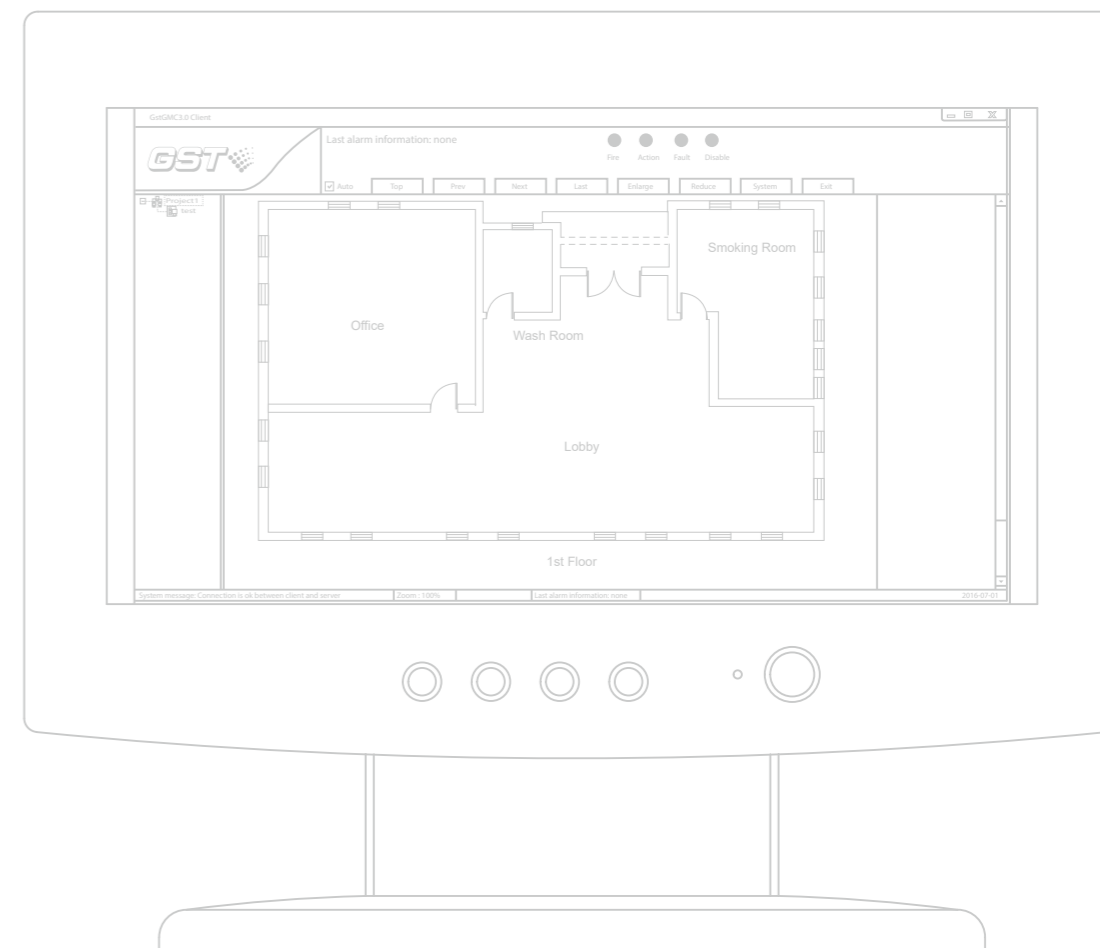
### PSU24-5
### PSU24-5A (Networkable)

·    Mains Supply: 230VAC+10%/-15%, 50/60Hz
·    Rated Output: 5A/26.5V DC
·    Backup Battery: 12Ah/24VDC
·     Dimension: 400mm×318mm×128mm
·    PSU24-5A networkable, report fault of mains loose, battery
     loose or output broken to the fire panel

### PSU24-10
### PSU24-10A (Networkable)

·    Mains Supply: 110VAC~230VAC, 50/60Hz
·    Rated Output: 10A/26.5V DC
·    Backup Battery: 24Ah/24VDC
·    Dimension: 520mm×350mm×156mm
·    PSU24-10A networkable, report fault of mains loose,
     battery loose or output broken to the fire panel

# Software

## GST Graphic Monitor Center

Fire alarm system monitoring software, designed by GST, to show the system diagram at a computer screen. Equipped with a friendly interface to achieve remote monitoring and control.

**Hardware Requirement**

CPU: Pentium III 1G or above minimum free

Hard disk: 10GB Memory: 2GB or above

**Operation System**

Windows 7, Windows 10 (IE8.0 or above)

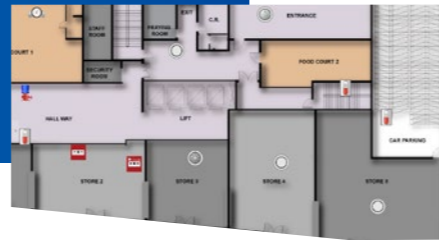GST-GMC also can be operated in Windows XP Professional (IE6.0 or above)

### System Diagram

## GstGMC-M2.2
## GstGMC3.0

- Supports 8 remote client stations plus local monitor station
- With OLE for Process Control (OPC), can be integrated into other systems
- Licensed with password
- GstGMC-M2.2 can be used with GSTM200 panels
- GstGMC3.0 can be used with GST200N and GST-IFP8 series panels

## GST-IFPX-GMC-S/M/L

- New generation with creative technology, used with GST IFPX series
- Displays creatively with device icons and text window, to realize perfect explicitness.
- Supporting maximum 10 client stations
- Satisfy different projects from less than 500, between 500-2000 and more than 2000 addresses
- Licensed by a dongle key, safe even if the computer collapses

## DEF-KEY
## DEF-KEY-TIMER

**USB Dongle Key**

DEF-KEY is a security device. With a CPU or smart card, it will protect a definition database configured with GST Def software and panel project configuration data from the unauthorized approach. The person without the right Dongle Key is not permitted to enter the Def software or create communication between the Def software and panels.

DEF-KEY can protect the system from a dangerous change and maintain the safe operation from authorized configuration

DEF-KEY-TIMER is an advanced model, which allows customized validity and renewal.

## EN Product System Diagram

Sounder
I-9403

MCP
DI-9204E

Isolator
DC-9503E

UV Flame
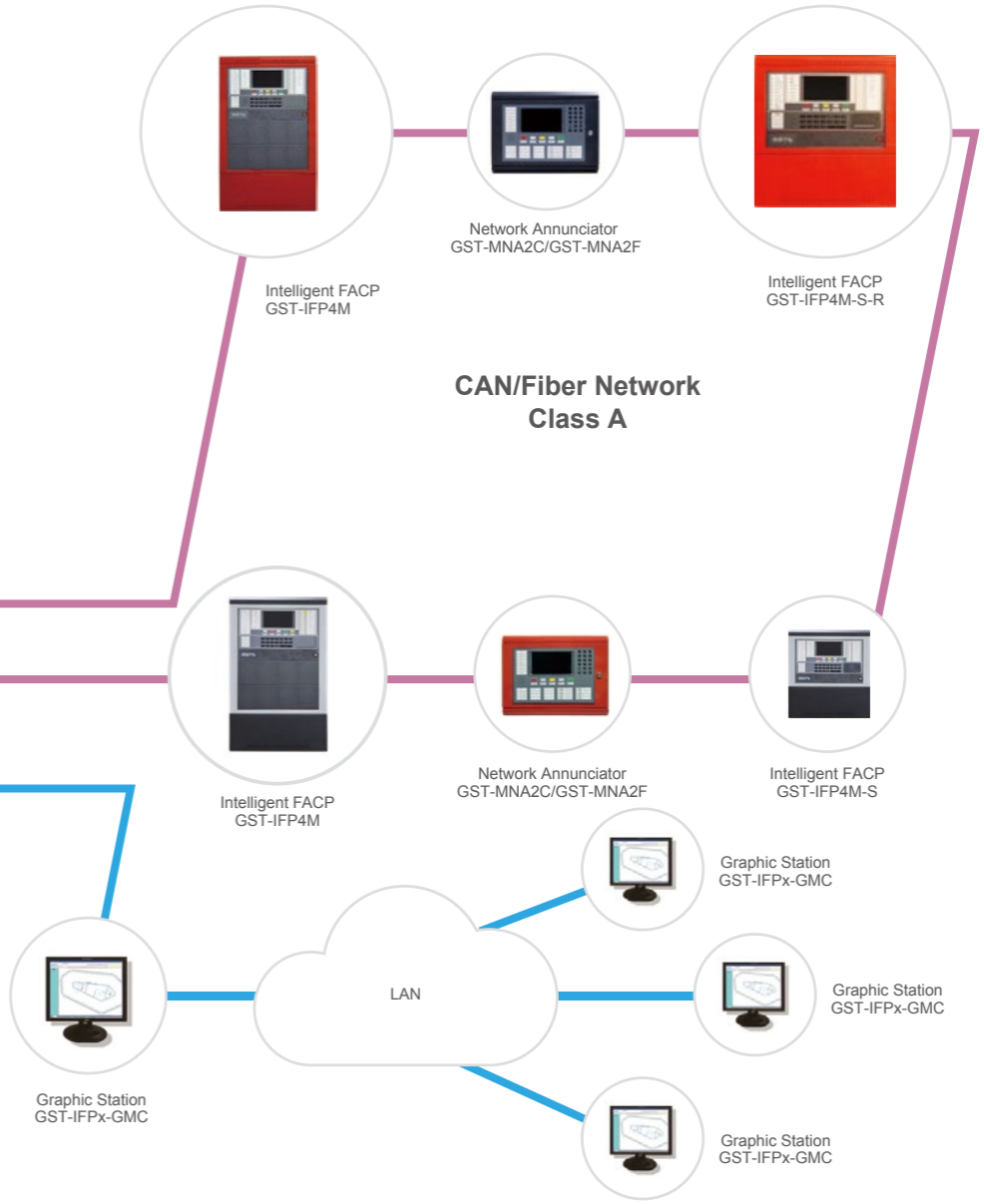I-9104

Heat
DI-9103E

Smoke
DI-9102E

Input Module
DI-9300E

Combination
DI-9101E

Input/Output Module
DI-9301E

Monitor Module
DI-9319E

Addr.Beam
DI-9105E

Conventional
Detectors

Combination
DC-9101E

Smoke
DC-9102E

Heat
DC-9103E

Conv.Beam
DC-9105E

Hi-V Relay Module
DI-9302E

Gas Detector
I-9602LW

Intelligent FACP
GST-IFP8

Gas Release
Panel
GST303

Output Interface
I-9333

Input Interface
I-9332

Intrinsically
Safe Sounder

Intrinsically Safe
Combination

Intrinsically Safe
Smoke

LCD Repeater
GST852RP

Emergency
Switch
C-9317

Solenoid Valve

Intrinsically Safe
Heat

Warning Indicator
C-9318

Intrinsically Safe
MCP

Graphic Repeater
GST8903

Intelligent FACP
GST200N

Network Repeater
GST-NRP00

Intelligent FACP
GST-IFP8

**CAN Network
Class A**

Intelligent FACP
GST200N

Intelligent FACP
GST200N

Graphic Station
GST-GMC3.0

LAN

Graphic Station
GST-GMC3.0

Graphic Station
GST-GMC3.0

Graphic Station
GST-GMC3.0

Graphic Station
GST-GMC3.0

- CAN Network is possible to be Class A , Class B or Star Topology. Suitable network cards and accessories are available.
- External 24VDC Power Supply may be required by some devices.
- Max. 8 Remote Users can be connected to the host PC through LAN

**UL Listed Product System Diagram**

**Conventional Detectors**

MCP
DI-M9204

Smoke
DI-M9102

Smoke
DI-M9102
Sounder Base
DI-M9402

Combination
DI-M9101

Single Input
DI-M9300

Combination
DI-M9101

Heat
DI-M9103

MCP
DI-M9204

Isolator
DC-M9503

Smoke
DC-M9102

Combination
DC-M9101

Heat
DC-M9103

Zone Module
DI-M9319

Single I/O
DI-M9301

Isolatort
DC-M9503

External printer

USB
Database/ FM
upgrade

**Auxiliary 24V Output**

Single Riser Module
DI-M9305

Smoke
DI-M9102

Combination
DI-M9101

Signal
Synchronization
DC-M9410

Sounder Strobe
DC-M9413R

Sounder Strobe
DC-M9413W

NAC Circuit

MCP
DI-M9204

Sounder Strobe
DC-M9413R

Sounder Strobe
DC-M9416R

Isolator
DC-M9503

Smoke
DI-M9102

Heat
DI-M9103

Single Input
DI-M9300

Intelligent FACP
GST-IFP4M

Intelligent FACP
GST-IFP4M

Network Annunciator
GST-MNA2C/GST-MNA2F

Intelligent FACP
GST-IFP4M-S-R

**CAN/Fiber Network
Class A**

Intelligent FACP
GST-IFP4M

Network Annunciator
GST-MNA2C/GST-MNA2F

Intelligent FACP
GST-IFP4M-S

Graphic Station
GST-IFPx-GMC

Graphic Station
GST-IFPx-GMC

LAN

Graphic Station
GST-IFPx-GMC

Graphic Station
GST-IFPx-GMC

· Need additional CAN/Fiber network card to be installed into panel for networking
· Maximum 10 Remote Users can be connected to the host PC through LAN
· Maximum output of Panel NAC+ Auxiliary output is 2.5A

# Emergency Voice Evacuation

## GST Fire Telephone panels

**Specialized for emergency communication. Call from handset will be transferred to networked fire telephone panels automatically after not answered by the dedicated panel.**
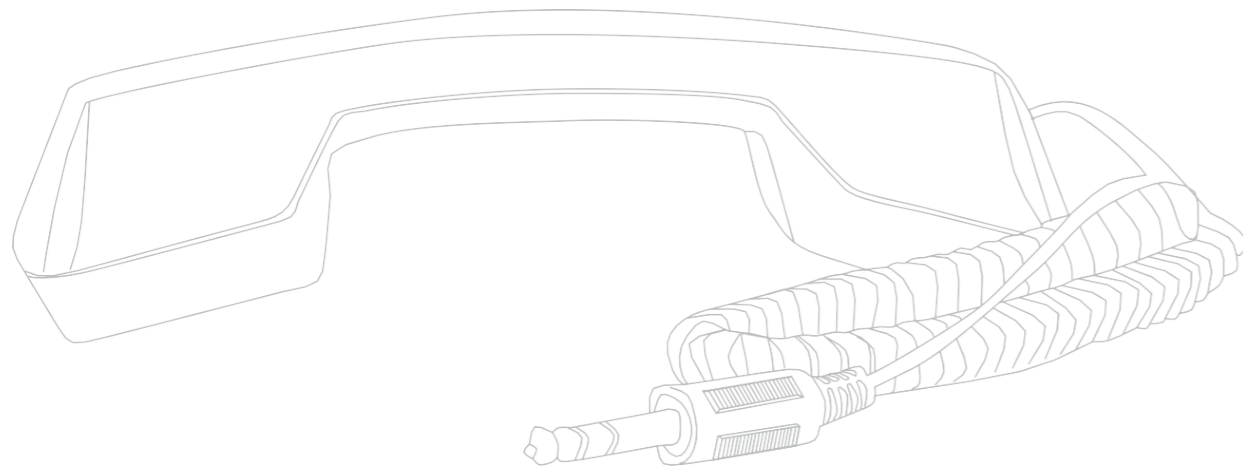
### GST-FT8WN

**Fire Telephone Panel
8 Zone/Wall-Mount**

### GST-FT24N

**Fire Telephone Panel
24 Zone/19" Rack-mount**

· Mains supply: 24VDC
· Conventional model
· Networkable up to 8 panels
· Each zone fully monitored of cable fault
· One zone failure won't affect other zones
· Network communication monitored

### P-9911(H)

**Hands-free Speaker Fire Telephone**

### P-9911(F)

**Fixed Fire Telephone Handset**

### P-9911(M)

**Mobile Fire Telephone Handset**

### P-9911(J)

**Fire Telephone Jack**

## Emergency Voice Evacuation System



### Emergency Voice Evacuation System

GST-VES voice evacuation allows for emergency voice announcements to evacuate people inside a building. With microphone, amplifier, and speakers, the system will release an alarm tone first, allowing the building manager or fire supervisor to broadcast the tone through a microphone. GST Voice Evacuation System equipment meets National Fire Protection Association (NFPA) standard and is UL approved.

### Features

- · True Multiplex 6 Channel Audio
- · Integrated Fire Phone
- · Integrated 2 Channel Digital Message Repeater
- · Live Microphone Page to any zone
- · Fast RS-485 Communication Protocol
- · Fully Supervised
- · Easy Installation and Operation
- · Natural Sound Voice Recordings
- · Built-in Alarm and Alert Signals
- · Up to 4 Minute Message Capacity
- · Integrates with GST Fire Alarm Panel by RS232 or dry contact
- · Interfaces with non GST Addressable and Microprocessor-based Fire Alarm Panels
- · 2 Minute Message Restart on Microphone Key

### GST-MP
Master Panel

GST-MP is the Master Panel of the GST voice evacuation system. It provides the programing and operating interface, operates in conjunction with the Fire Alarm Control Panel (FACP) in a building to provide an automatic response to life safety emergencies
GST provides two basic master panel models with the option to be integrated into the Fire Alarm Control Panel.
GST-MP16 :  16 switches/LEDs and 16 inputs for FACP with Cabinet
GST-MP16x:  GST-MP16 without Cabinet, for integrating into GST-IFP8-VT

### GST-DP
Distributor Panel

GST-DP is the Distributed Panels in the system. All GST-DP are connected to a master panel, receiving the command and voice signal from GST-MP, amplifying, and providing 25V or 70V audio source to the speaker directly.
GST provides 4 basic option of GST-DP
GST-DPS50, single channel, 50W
GST-DP50, dual channel, 50W
GST-DPS100, single channel, 100W
GST-DP100, dual channel, 100W

## Emergency Voice Evacuation System
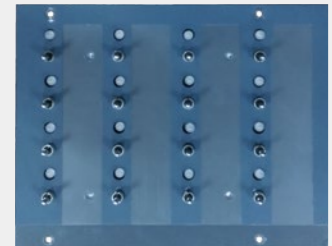
### MFP

**Master Fire Phone Card**
Accessory on master panel for fire phone. Add 1 MFP to GST-MP16 or GST-MP16X if the fire phone is required.

### GST-MFH-A

**Master Fire Phone Handset Assembly**
Accessory on master panel for fire phone. Add 1 MFH to GST-MP16 or GST-MP16X if the fire phone is required.
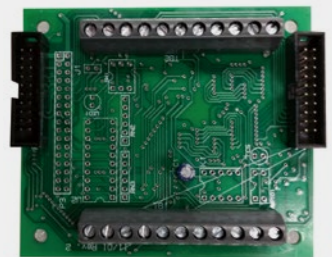
### SLC

**Switch LED Card**
Accessory on master panel. One SLC card provides 16 switches and LED's for manual control at Master Panel. Add SLC cards if more than 16 switch/LED are required

### SSC

**Switch Scan Card**
Accessory on master panel. Each SSC card controls up to 8 switch/LED cards. One SSC card is included in the basic GST-MT master panel.

### GST-XI

**Extended Input Interface card**
Accessory on master panel. One XI card provides 16 additional inputs to master panel. Maximum 7 XI can be connected to one II card.

### MBK

**Mother Board Relays**
One MBK card provides 4 class "B" speaker circuits. And two MBK cards provide 8 "class B" or 4 "class A" speaker circuits in one distributed panel. One MBK card is included in basic GST-DP panel.

### GVX-BA

**Backup Amplifier Switching Relay**
One required for each Distributed Amp when automatic switching / redundant amplification is needed On a Single Channel system the backup amplifier can be located in any GST- DP panel. On a Dual Channel system an additional AMI card, and EVX needed. #E Amplifier assembly is required (the # represents the largest power amplifier in the system 50/100).

### FPO2

**Fire Phone Interface Terminal**
One FPO2 provides 4 additional terminals for fire phone circuits. It is required for the 2nd, 3rd and 4th FPI Fire Phone Interface in GST-DP.

### FPI

**Fire Phone Interface**
Each FPI provides 4 supervised class "B" fire phone circuits in a DP panel. Maximum 2 FPI (8 phone circuits) can be installed in one GST-DP.

### GVX-50E / GVX-100E

**Amplifier Module**
GVX-50E is a 50W amplifier module and GVX-100E is a 100W amplifier module. The amplifier module is included in basic GST-DP. Amplifier modules may be ordered as spare or adding extra output power to GST-DP. Max 2 amplifier modules can be mounted in one GST-DP.

### XFMR

**Transformer**
This transformer is for amplifier module. 220VAC, 50Hz. It is required if additional amplifier is added to GST-DP.

### P-9935EVAX

**Communication Card**
This card provides interface between GST-IFP8-VT FACP and GST-MP via RS232 port. It is not required if the dry contact interface is employed.

# Emergency Voice Evacuation System

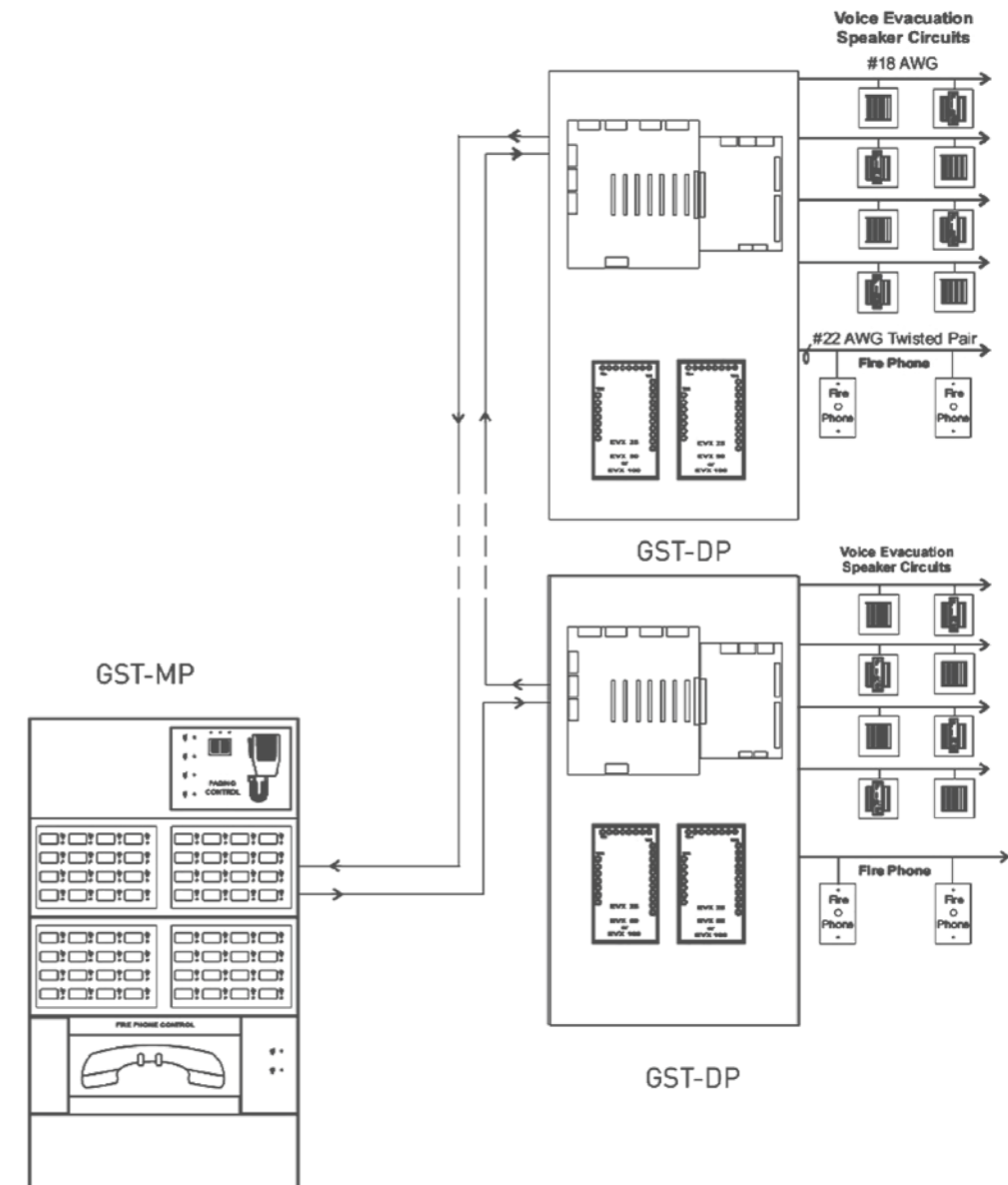| Part No. | Product Description | Default QTY | Max. QTY | Max. QTY |
|---|---|---|---|---|
| GST-MP16 | Master panel, with 16 inputs, 16 Switches/EDs, with Cabinet | N/A | N/A | N/A |
| GST-MP16x | Master panel, with 16 inputs, 16 Switches/EDs, without Cabinet | N/A | N/A | N/A |
| GST-DP50 | Distributed panel, Dual channels 50 Watts, 4 Class B speaker circuits | N/A | N/A | N/A |
| GST-DPS50 | Distributed panel, Single channel 50 Watts, 4 Class B speaker circuits | N/A | N/A | N/A |
| GST-DP100 | Distributed panel, Dual channels 100 Watts, 4 Class B speaker circuits | N/A | N/A | N/A |
| GST-DPS100 | Distributed panel, Single channel 100 Watts, 4 Class B speaker circuits | N/A | N/A | N/A |
| SLC | Switch LED Card | 1[(1)(2)] | 64 | Optional components for Master Panel, More than 16 switches and LED's required, another SLC is needed |
| SSC | Switch Scan Card | 1[(1)(2)] | 8 | Optional components for Master Panel, Every 8 SLC needs one SSC |
| MFP | Master Fire Phone Card | 0 | 1 | Optional components for MP |
| GST-MFH-A | Master Fire Phone Handset Assembly | 0 | 1 | Optional components for MP |
| FPI | Fire Phone Interface | 0 | 4 | Optional components for Distributed Panel, 4 supervised Class "B" Fire Phone circuits per FPI |
| FPO2 | Fire Phone Output Adapter | 0 | 3 | Optional components for Distributed Panel, More than 1 FPI is required in a Distributed Panel, one FPO2 card is needed for each |
| GVX-50E | Amplifier Module | 1[(4)] 2[(3)] | 1[(4)] 2[(3)] | Optional components for GST-DPS50, if converts from GST-DPS50 to GST-DP50, one GVX-50E is needed |
| GVX-100E | Amplifier Module | 1[(6)] 2[(5)] | 1[(6)] 2[(5)] | Optional components for GST-DPS100, if converts from GST-DPS100 to GST-DP100, one GVX-100E is needed |
| MBK | Mother Board Relays | 1[(3)(4)(5)(6)] | 2 | Optional components for Distributed Panel, One additional MBK needed for 8 Class "B" or 4 Class "A" Speaker Circuits on Distributed Panel. |
| P-9935EVAX | RS232 Communication Card | 0 | 1 | Interface card between GST-IFP8 or GST-IFP8-VT and Master panel, Provides communication between GST-IFP8 panel and GST-MP |
| XFMR | Transformer | 1[(4)(6)] 2[(3)(5)] | 1[(4)(6)] 2[(3)(5)] | Optional components to convert single channel Distributed panel to dual channels Distributed panel. One transformer required per amplifier |
| XI | Extended Input Interface | 0 | 7 | Optional components for Master panel, connect, connect with II Input Interface card, provides additional 16 inputs per XI card |

(1) Configuration for GST-MP16
(2) Configuration for GST-MP16x
(3) Configuration for GST-DP50
(4) Configuration for GST-DPS50
(5) Configuration for GST-DP100
(6) Configuration for GST-DPS100
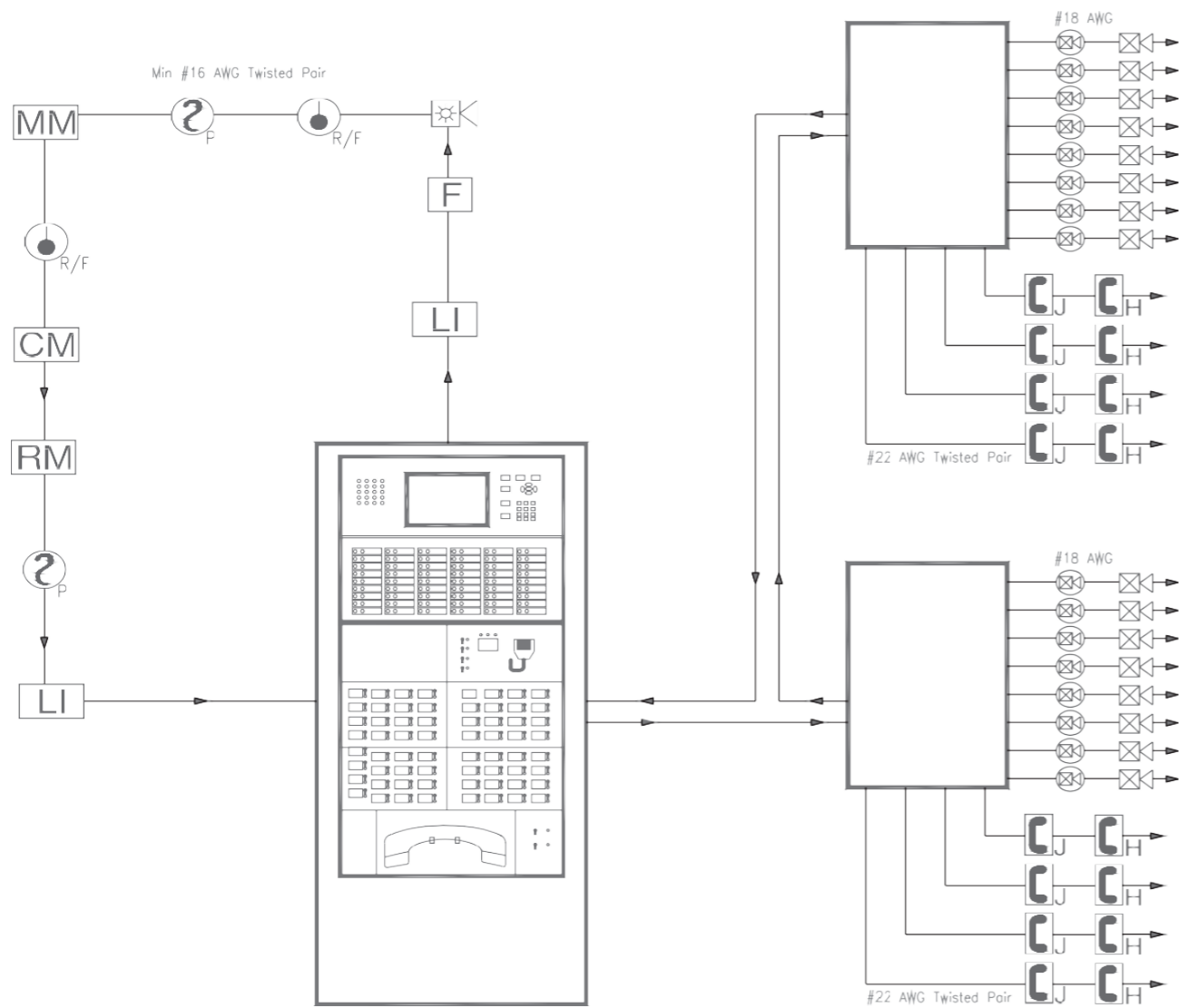
## GST-VES system diagram



## Technical Specification

- Communications: RS-485 Standard, 1M Baud rate
- Primary Supply: 220VAC
- Backup Battery: 7AH/24VDC(GST-MP), 17AH/24VDC(GST-DP)
- Electrical Ratings: All Circuits @ 24VDC
- End of Line Resister: 10k
- Maximum Cable Length: 4,000 feet, #16 AWG, between panels, 50,000 feet in the overall system
- Recommended Cable: 16 or 18 AWG, (Low-Capacitance) UTP Unshielded-Twisted Pair

**System Diagram - GST-VES with GST-IFP8-VT**

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