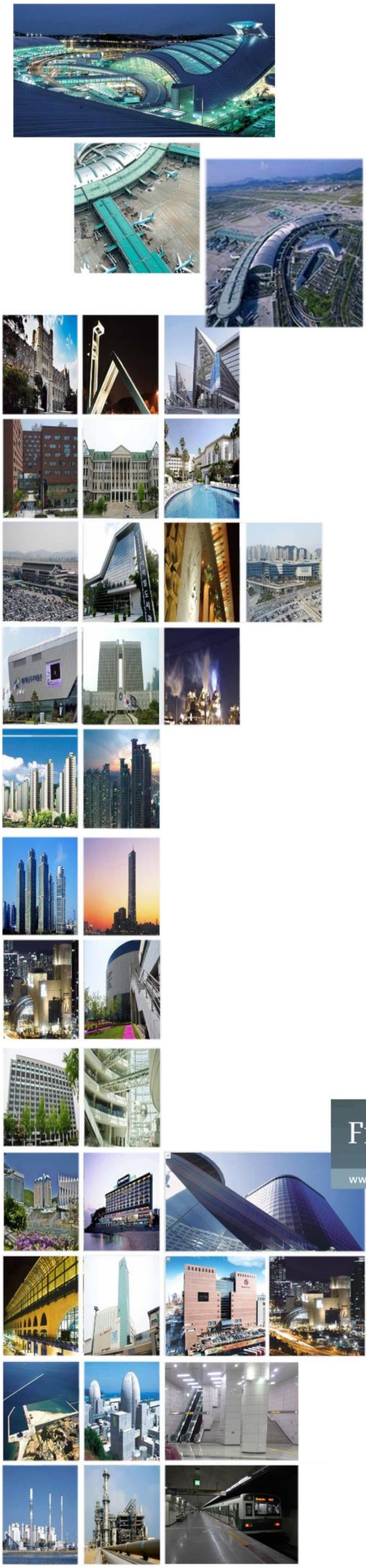


SIEMENS

YOUR FIRE SAFETY PARTNER

Fire Alarm System Catalogue

www.siemens.co.kr/bt

Answer for Building Technologies

SIEMENS

SRF1.8

Addressable fire alarm panel

Korea Fire Industry Technology Institute
Approved

- Displays fire alarm/fault/trouble on detailed graphic layout view
- 15" touch-screen operational TFT LCD display
- Based on 32-bit microprocessor with Linux OS
- 127 addressable devices per line/loop (P-net)
- Wall mounted fire alarm panel with 508 addresses
- Standing fire alarm panel expandable up to 3,556 addresses
- Highly scalable through X-net & M-net network expansion
- Up to 32 addressable SRF panels connectable through X-net
- For economical expansion of addressable system up to 64 transponder panels can be used in M-net loop network
- Up to 64 conventional panels can be connected through M-net
- Display of real time variation of analogue value of smoke density and temperature at pre-alarm/alarm state
- Up to 192 circuit P/S input & pump operation capability
- Free topology in detection line configuration
- Interlocking capability among various input & output
- Easy programming download through USB memory stick
- Complies with NFCS 203-7 Korean fire code

SRF1.8 panel overview

SRF1.8-1W

Standard configuration

- 15″ LCD touch-screen display
- 508 address panel
- Wall mounted type
- SMPS type 420VA power supply
- 7Ah battery backup
- Built-in fire-man phone
- Max. 4 pump circuit operation
- Indication of max. 4 pump status
- Max. 16 relay circuit operation

Optional

- Ethernet connection
- Mimic panel connectivity

SRF1.8-1S / 2S / 3S / 4S / 5S

Standard configuration

- 15″ LCD 터치스크린 및 표시
- From 508 up to 2540 address
- Standing type
- SMPS type 420VA power supply
- 2x7Ah battery backup
- Built-in fire-man phone
- Max. 24 pump circuit operation
- Indication of max. 24 pump status
  ☞ additional circuitry upon order
- Max. 48 relay circuit operation

Options

- Ethernet connection
- Mimic panel connectivity
- CHH transponder connectivity
- HLT transponder connectivity
- AC110/220V power supply

Technical data

Address capacity per line	Max. 127 addresses
P-net line capability	1.2 km (up to 50Ω)
Communication protocol	Polling address(P-net) / RS-485(X-net, M-net)
Max. device per panel	Standard: Max. 20 line (20 ×127 =2,540 device)
Transponder panel network	Max. 64 nos. (M-net), TDS panel max. 2
M-net device capacity	508 devices with each transponder panel × 64 max. = 32,512 devices (max.)
Panel network	Max. 32nos. (X-net)
X-net device capacity	32,512 device / panel × 32 max = 1,040,384 devices
Humidity	0 ~ 90%
Temperature range	-10℃~ +50℃
Type/classification/application	AC220V, DC24V, LCD type, analogue type, accumulation type, suitable for interface with internal/external hydrant system, sprinkler, extinguishing system, gas detection system
Cabling limits	STP 18AWG cable - X-net (1.2km max.) - M-net (1.2Km for each line) - Fiber optic cable (12km max.)
Backup power	2 × DC12V 7Ah
Thickness of panel	Wall mounted type: 1.2mm / Standing type:1.6mm
Color	Black (standard), other color possible as option
Fire safety standard	NFSC 203, section 5
Type approval code	KOFEIS 0304
Quality approval	ISO 9001:2000

Details of ordering

	Type	Order no.	Designation	Weight
Fire panel	SRF1.8-1W	102960598	Wall mounted 508 addr.	10 kg
	SRF1.8-1S	102819729	Standing type 508 addr.	20 kg
	SRF1.8-2S	102819738	Standing type 1,016 addr.	20 kg
	SRF1.8-3S	102819761	Standing type 1,524 addr.	22 kg
	SRF1.8-4S	102819770	Standing type 2,032 addr.	22 kg
	SRF1.8-5S	102819774	Standing type 2,540 addr.	24 kg
	SRF1.8-7S	102836019	Standing type 3,556 addr.	

Accessories	Relay16 TMN	Relay output 16 circuits
	Pump4 TMN	Pump supervision /output 4circuits
	SRE I/F TMN	CHH/HLT transponder
	Mosaic I/F	Mimic panel interface
	Key24	Pump starter switch 24 circuit
	AC 110/220V I/F	AC110V input, AC220V output transformer

Functional elements

Main operational elements
- Main CPU board for touch-screen TFT LCD Panel
- Ethernet connection port
- X-net / M-net connection port
- Pump function switch, status signal
- Internal power supply & battery backup (standard 1.0 hr)

Key24 board
- Main CPU board and Key switch interlocking

ALD2 board
- Supervise P-net detection line signal
- Identify device address & send control signal
- 4 nos. detection line configuration per ALD2
- Max. 127 devices per line (P-net)

FTM transponder panel
- Transponder panels can be connected through M-net
- Contains 1 no. ALD2 card (4 lines, 508 devices)
- Internal power supply & battery backup
- Line status indications in panel LCD display unit

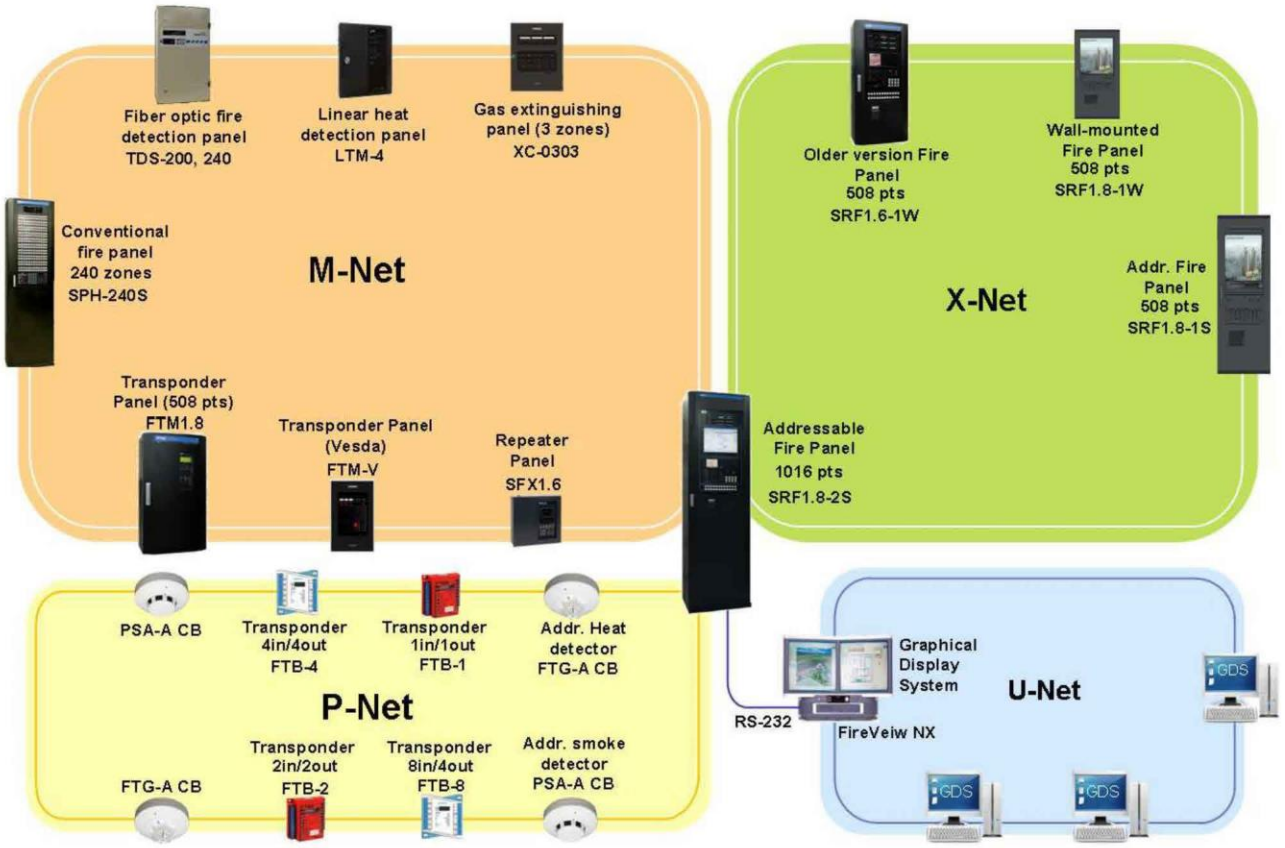
SFX repeater panel
- M-net connected floor repeater panel for additional status display

Programming Tool
- SrfUM Engineering-Tool is used for easy & quick programming for panel
- Device data, building graphic images, icons, etc. are incorporated with SrfUM

Application ranges

- Commercial buildings
- High rise buildings
- Apartments
- Offices
- Warehouses
- Departmental store/shopping mall
- Hotels
- Factories
- Etc.

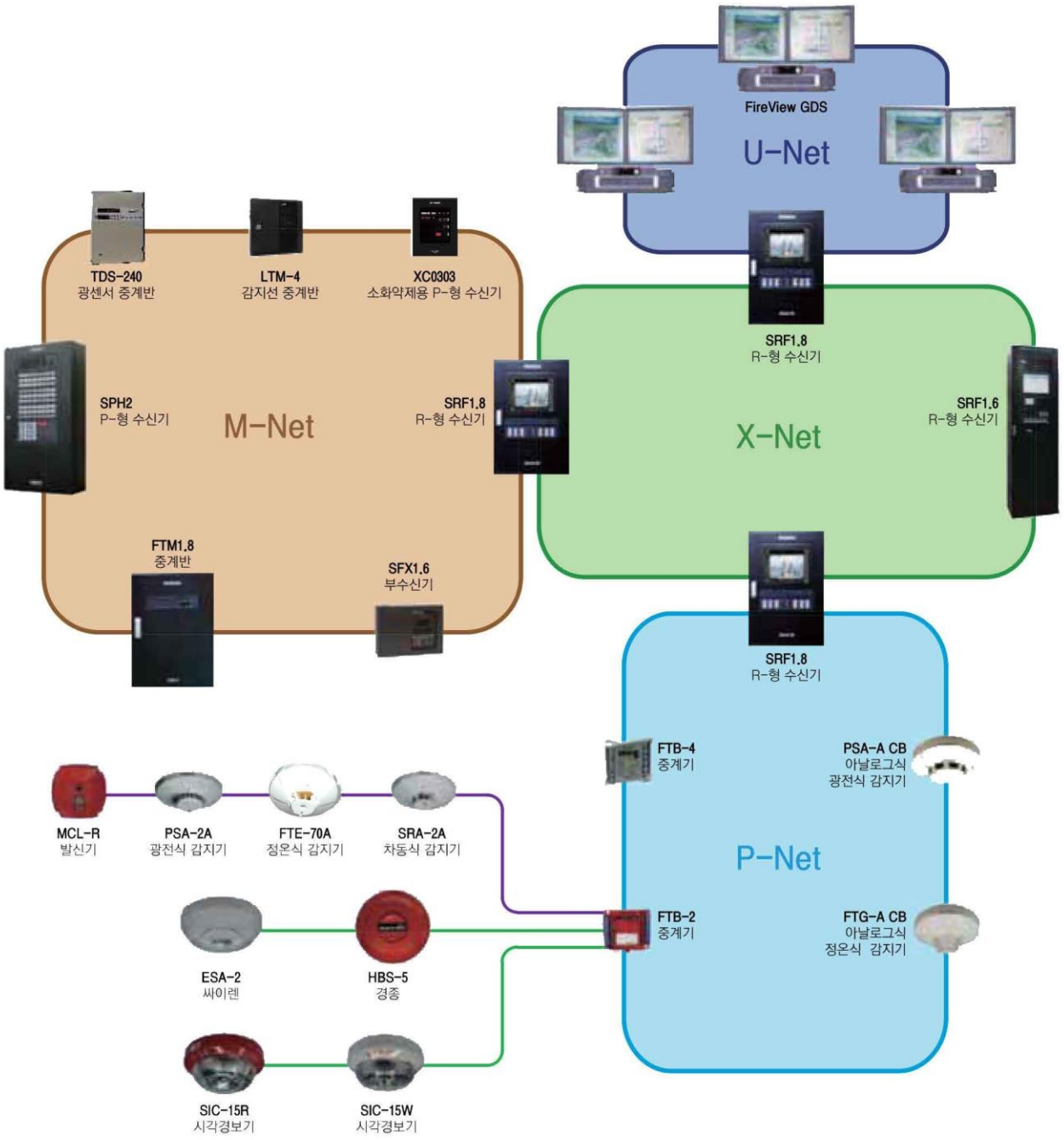
System Overview



Characteristics

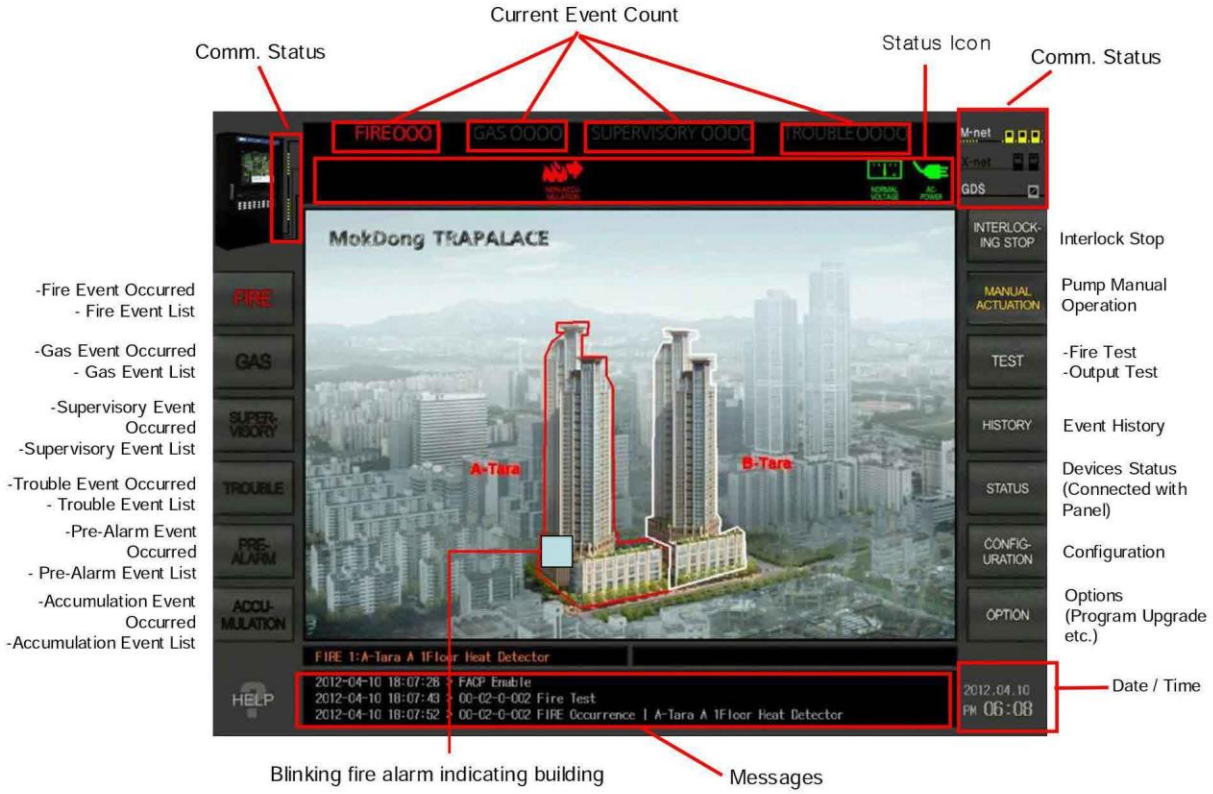
- Addressable smoke detector (PSA-A CB), heat detector (FTG-A CB) and 4-variant transponders (FTB-1/2/4/8) can be connected to P-net detection stub line/loop
- Addressable SRF1.8/1.6 fire panels can be connected to X-net loop network
- Different types of fire detection panels can be connected through M-net loop network and monitored from the main SRF1.8 panel:
  - Addressable transponder panels: FTM1.8, FTM1.6, FTM1.8V, FTM1.6V
  - Conventional fire alarm panels: SPH-xxx
  - Floor repeater panel: SFX1.6
  - Fiber optic fire detection panel: TDS200, TDS240
  - Linear heat detection panel: LTM-4W
  - Gas extinguishing panel : XC03xx
  - others
- PC based graphical display program, FireViewNX, connects through RS232/LAN forming U-net for networked client PC
- Networking of SRF1.8/1.6 fire panels with older version SRF1.0, SRF1.5 panels over TCP/IP Ethernet can be established using digital network controller, DNC-III
- Long distance communication over X-net, M-net possible via OTN network
- Mimic panel can be integrated with SRF1.8 panel
- Migration options with legacy panels (Shinwha)

SRF Complete Configuration

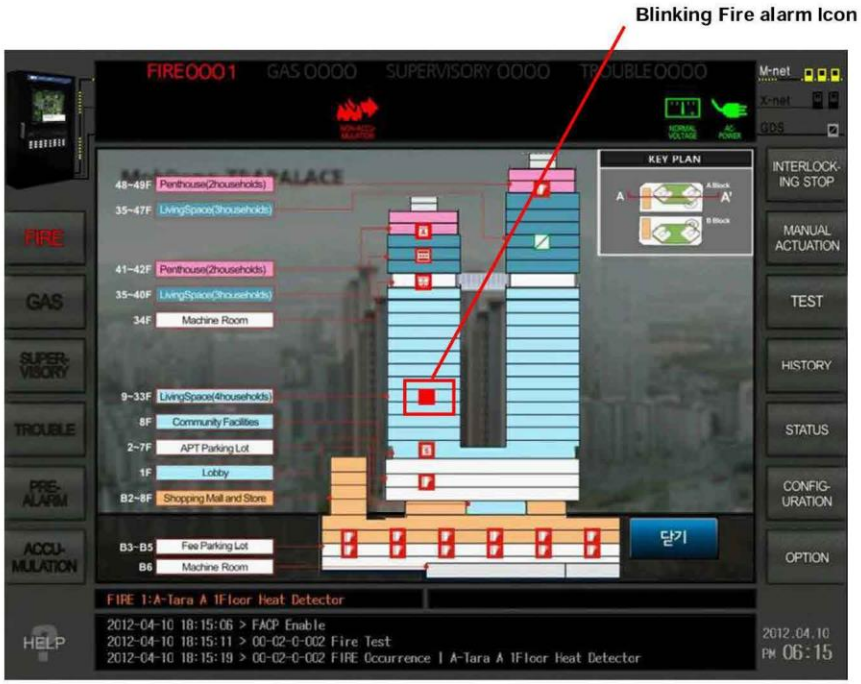


►Touch-screen display has the following icons, views for monitoring & operational purpose

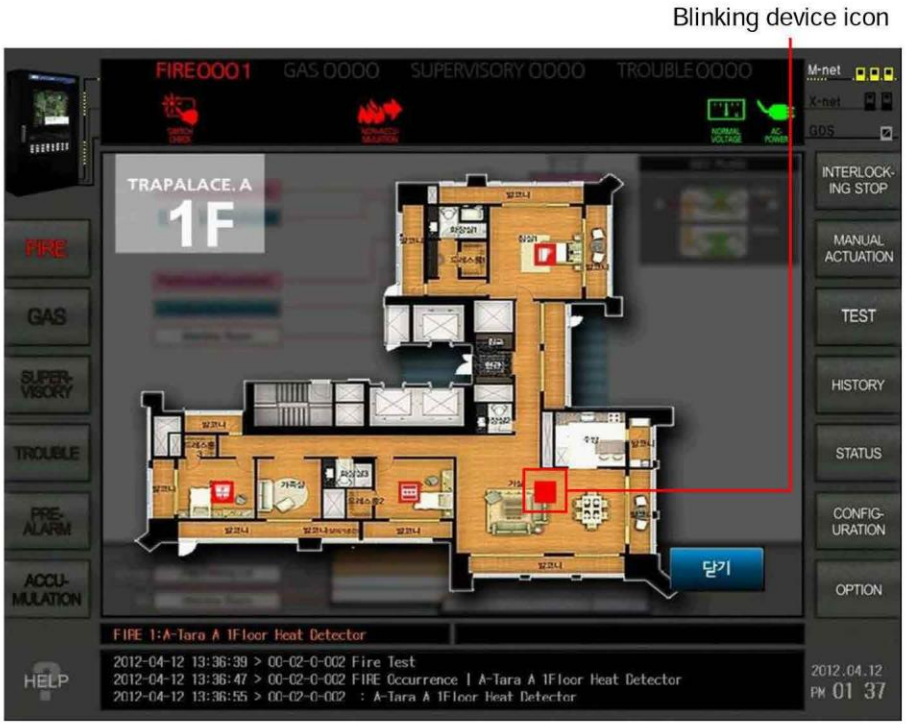
User interfaces and functions



Fire alarm indication at floor level



Fire alarm indication on room layout

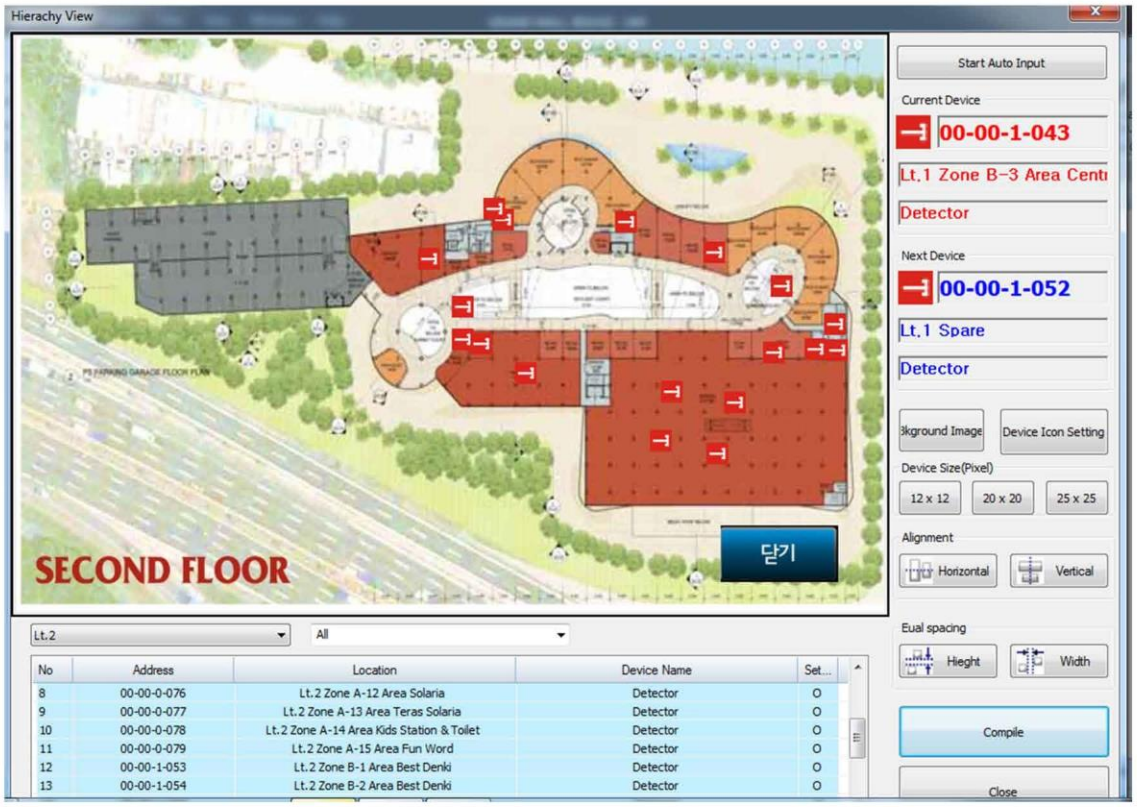


Interlocking operation

** Upon touching LCD screen on the building image under fire, a complete sectional floor view of the building appears and it shows in which floor the fire alarm occurs. When the blinking device at that floor view is touched, another screen with detailed room layout view is displayed which shows a blinking icon of the device currently under fire alarm condition.*

** Real time variation of smoke density & temperature of detectors can be viewed in a separate window.*

Graphic Menu SRF1.8



Siemens Ltd Seoul
Building Technologies
726 Yeoksam-dong, Kangnam-gu

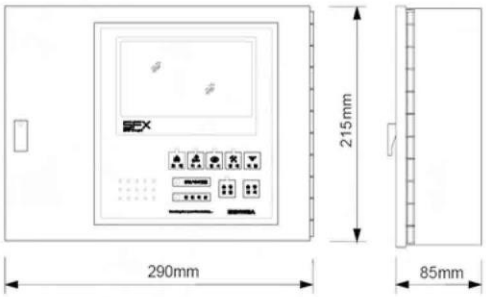
www.siemens.co.kr

SIEMENS

SFX

SRF Sub Indicating Panel

Model	: SFX1.6
Approval	: UL, KFEIC
Operating Temperature	: - 10 ~ 50℃
Humidity	: 0 ~ 90%
Rated voltage	: AC 220V, 50 or 60 Hz
Number of circuit	: Fire, Gas leak , Supervisory, Trouble,
Communication line	: STP 18AWG Standard X-net max 1.2 km
Signal transmission	: RS-485
Battery	: DC 24V, 600mAh (Ni-Cd)
Casing	: 1.0 mm thickness steel plate
Color	: Black

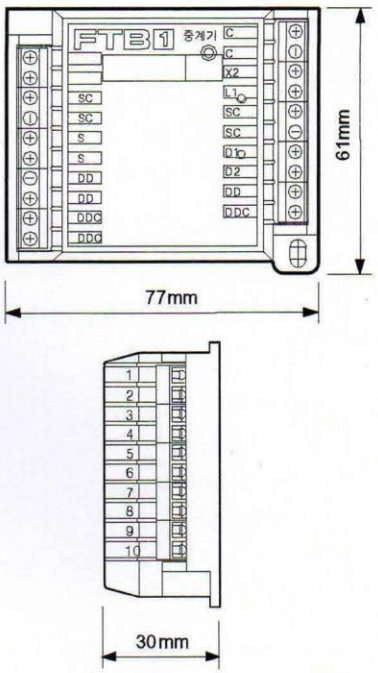


1. DESCRIPTION

The FTB Transponder is a addressable device which connected between SRF Fire alarm control panel and Analog Loop of FTM Remote control panel and supervise all kind of device in the site. There are 1 addressable transponder FTB-1 (1supervision / 1 control) and 2addressable FTB-2 transponder (2supervisions / 2 controls) and apply for the site according to number of input, output addresses. FTB-4 transponder (4supervisions / 4 controls)

Using SRF transponder is to supervise and control of fire detector, manual alarm box, alarm valve, fire prevention shutter, smoke proof damper, Temper switch etc which installed into all kind of fire objects that installed fire alarm control panel. SRF transponder's advantages are small size and easy to install, separated type between terminal and housing, easy to maintenance.

The method of address designation is using Dip switch with the binary scale which designate 127 addresses by using seven (7) positioned Dip switch.

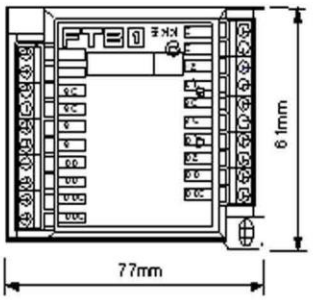


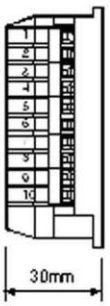
2. SPECIFICATION

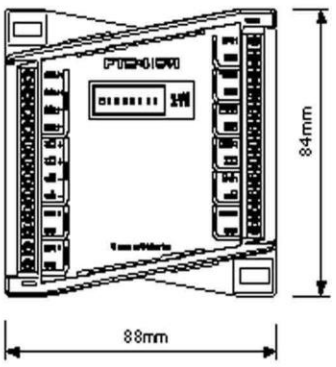
- Model : FTB
- Ambient temperature : −10 ~ 50℃
- Rated voltage : DC 24V
- Electric current consumption : 1mA
- Material : Nonflammable ABS
- Color : Black

- Model : FTB
- Approval : CE, UL, KFI Approved
- Type : Multiplex, Digital
- Operating temperature : 10 ~ 50 deg Celcius
- Rated voltage : DC 24V
- Current : FTB-1, FTB-2 - 1mA
  FTB-4 - 1.1mA(normal), 2.1mA(active)
- Material : Nonflammable ABS
- Color : Red, White
- Ordering Information :

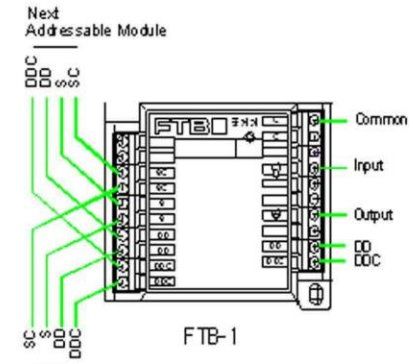
MODEL	STANDARD	ORDER NO.	WEIGHT
FTB-1	Single Input / Single Output	9204-001-02	86g
FTB-2	Dual Inputs / Dual Outputs	9204-002-02	86g
FTB-4	4 Inputs / 4 Outputs	9204-040-00	120.5g

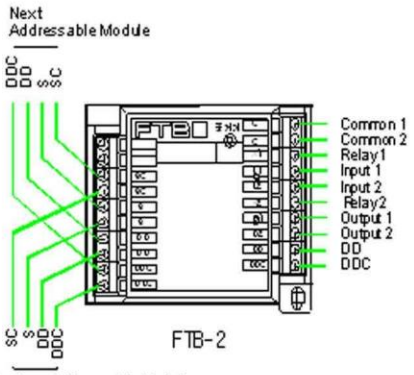






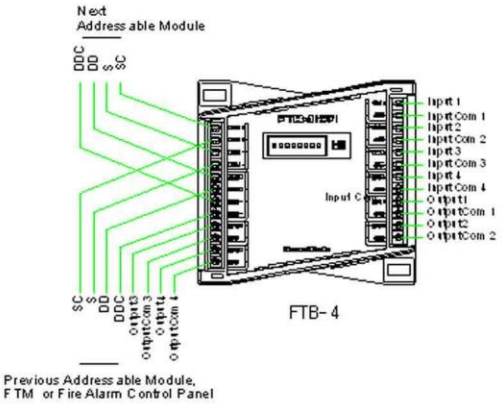
WIRING DIAGRAM





Remark

DD : Addressable Module Power(+)
DDC : Addressable Module Power(-)
S : Addressable Module Signal(+)
SC : Addressable Module Signal(-)



PSA-2A-RE

Photoelectric type PSA-2A-RE smoke detector is designed with slimmer depth for ceiling mounting to ensure prompt detection of smoke propagation. Reliable electronic component used in the detector prevents possible internal malfunction. The detector periodically senses smoke density in the smoke chamber. Inside smoke sensing smoke chamber, infra-red light emitting diode (IR-LED) periodically emits infra-red light which is obstructed by a internal barrier and so receiving photo-diode (PD) cannot receive emitted light. When smoke enters into smoke chamber emitted IR light reflects on smoke particle and photo-diode receives light signal which is thereafter internally assessed as fire alarm and LED of the detector starts to blink.

Detector bases are same and common to available other conventional detectors, i.e. SRA-2A Rate-of-Rise heat and FTE-70A fixed temperature detectors.

KFI certificate no. (Korean version only)	gam14-2,photoelectric, class-2
Smoke density at alarm	> 10%/m
Compatible panels	SPH panel and input lines of FTB-1,2,4,8 transponder
Current consumption	Quiescent current 50μA Alarm current 30mA
Coverage area	Installed height up to 4m — 150m² Installed height 4m to 15m —75m²
Detectors per line	< 20 nos.
Housing material	Fire-proof PC
Color	White
Fire standards	NFSC 203 sec 7
Supply voltage	DC 24V
Ambient temp	-10 ~ 50°C
Rel. humidity	0 ~ 90%
Weight	85g (including base)
Dimension	Ø116xH37mm

SRA-2A-RE

SRA-2A heat detector is a semiconductor based rate-of-rise detector that senses ambient temperature and compares its rate of increase of heat with that of internal set-point temperature gradient and trigger alarm when it exceeds that value by blinking alarm LED indication.

Detector has two high-performance thermistors which monitor ambient temperature variations and compares the values with that of reference thermistor. If there is a drastic changes in the temperature gradient it triggers an alarm. However, if there is gradual change in temperature due to typical variation of environmental conditions it is assessed as normal situation and therefore the detector is well capable to determine actual fire situation.

Detector bases are same and common to other available conventional detectors, i.e. PSA-2A smoke and FTE-70A fixed temperature detectors.

KFI certificate no. (Korean version only)	Gam14-3, Rate-of-rise, class-2, semiconductor type
Temperature rise at alarm	> 1.5°C/sec
Compatible panels	SPH panel and input lines of FTB-1,2,4,8 transponder
Current consumption	Quiescent current 30µA Alarm current 30mA
Coverage area	Installed height up to 4m — 70m² Installed height 4m to 8m —35m²
Detectors per line	< 25 nos.
Housing material	Fire-proof PC
Color	White
Fire standards	NFSC 203 sec 7
Supply voltage	DC 24V
Ambient temp	-10 ~ 50°C
Rel. humidity	0 ~ 90%
Weight	75g (including base)
Dimension	Ø116xH37mm

FTE-70 ARE

FTE-70 ARE fixed heat detector is a semiconductor based detector that senses ambient temperature and compares its rate of increase of heat with that of internal set-point temperature gradient and trigger alarm when it exceeds that value by alarm LED indication.

Detector is suitable for high temperature room such as kitchen, utility room, generator set room, transformer room etc.

Detector bases are same and common to other available conventional detectors, i.e. PSA-2ARE smoke and SRA-2 ARE rate of rise detectors.

KFI certificate no. (Korean version only)	Gam14-3, Fixed Temp , class-2, semiconductor type
Temperature rise at alarm	> 70 °C
Compatible panels	SPH panel and input lines of FTB-1,2,4,8 transponder
Current consumption	Quiescent current 30µA Alarm current 30mA
Coverage area	Installed height up to 4m — 70m² Installed height 4m to 8m —35m²
Detectors per line	< 25 nos.
Housing material	Fire-proof PC
Color	White and Yellow in centre
Fire standards	NFSC 203 sec 7
Supply voltage	DC 24V
Ambient temp	-10 ~ 50°C
Rel. humidity	0 ~ 90%
Weight	75g (including base)
Dimension	Ø116xH37mm

PSA-A CB

PSA-ACB smoke detector is an analogue addressable type smoke detector working principle of which is light-scattering on smoke particle. Operation of its optical sensor is controlled by a built-in microprocessor which periodically sends unique device address (set by DIP switches) to fire alarm panel. Detectors continuously sense smoke density & device status in order to transmit corresponding current signal to panel. Infra-red light emitting diode (IR-LED) inside smoke sensing smoke chamber periodically emits infra-red light which is obstructed by a internal barrier and so receiving photo-diode (PD) cannot receive emitted light. When smoke enters into smoke chamber incident IR light reflects on smoke particle and photo-diode receives light signal which is thereafter amplified and sent to fire alarm panel. In the panel, if the received signal of smoke density exceeds a pre-assigned value, the panel confirms it as it as fire alarm, displays in the panel LCD and the LED of the detector itself starts to blink.

LED of PSA-A CB model detectors blink in short intervals in case of a fire alarm while PSA-A(NF)CB does not blink in such situation. Detector bases are the same for both PSA-A CB smoke and FTG-A CB heat analog detectors.

Fire warden in fire command center can monitor smoke density of PSA-ACB smoke detector (having specific address) in real-time and can quickly verify actual status at the very location and if necessary take immediate fight fighting measures, and also can investigate cause of such unusual smoke density later on.

KFI certificate no. (Korean version only)	gam11-8 | PSA-A CB gam11-21 | PSA-A(NF) CB
	Analog, photoelectric type
Smoke density range	6%~18%/m
Compatible panels	SRF1.6/1.0, SRF1.8 FACP FTM transponder panel
Current consumption	Quiescent current 500㎂ Alarm current 7mA
Coverage area	Installed height up to 4m — 150m^2 Installed height 4m to 20m —75m^2
Detector per line	< 127 nos.
Housing material	Fire-proof ABS
Color	White
Fire standards	NFSC 203 sec 7
Supply voltage	DC 24V
Ambient temp	-10 ~ 50□
Rel. humidity	0 ~ 90%
Weight	135g
Dimension	Ø110xH38mm

Ordering ASN

PSA-A CB

PSA-A(NF) CB

FTG-A CB

FTG-A CB heat detector is an analog addressable & fixed temperature type detector that applies thermal sensing by thermistor. Temperature sensing operation of thermistor is controlled by a built-in microprocessor which periodically sends unique device address (set by DIP switches) to fire alarm panel. Temperature variation can be quickly detected thanks to application of high-sensitive thermistors. Detectors continuously sense temperature level & device status in order to send corresponding current signal to panel. In the panel, if the received current signal exceeds a pre-assigned temperature value , the panel confirms it as it as fire alarm, displays in the panel LCD and the LED of the detector itself starts to blink..

Panel periodically receives real-time signal from FTG-ACB detector LED of which simultaneously blinks. Detector base is the same both FTG-A CB heat analog and PSA-ACB smoke detectors.

Fire warden in fire command center can monitor temperature level of FTG-ACB heat detector (having specific address) in real-time and can quickly verify actual status at the very location and if necessary take immediate fight fighting measures, and also can investigate cause of such unusual temperature variation later on.

KFI certificate no. (Korean version only)	gam11-9/ Analog, fixed temperature type
Temperature range	60 ~ 90
Compatible panels	SRF1.6/1.0, SRF1.8 FACP FTM transponder panel
Current consumption	Quiescent current 500 L Alarm current 7mA
Coverage area	Installed height up to 4m — 70m² Installed height 4m to 20m —35m²
Detector per line	< 127 nos.
Housing material	Fire-proof ABS
Color	White
Fire standards	NFSC 203 sec 7
Supply voltage	DC 24V
Ambient temp	-10 ~ 50
Rel. humidity	0 ~ 90%
Weight	90g
Dimension	Ø110xH47mm

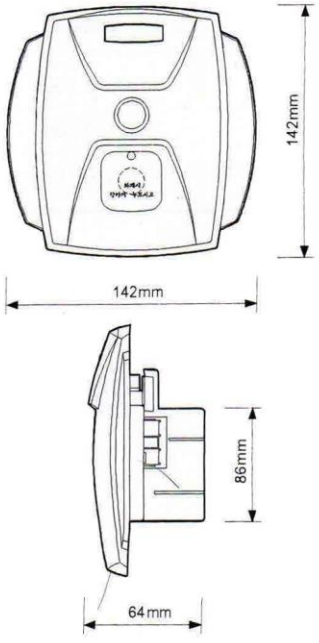
Ordering ASN

FTG-A CB

MCL-R1 AE

When a person observes fire occurrence in a fire protected zone, he can immediately activate an alert signal using a nearby manual call point which sends signal to main fire alarm panel and alert fire warden in the fire command center. By using a telephone jack, an inspector can easily verify on-the-spot situation at the very location of fire incidence. MCL is usually installed in the upper part of hose boxes along the indoor path of fire exit route, although it can be installed separately in other smaller enclosure.

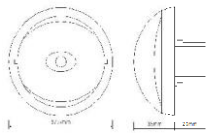
MCL manual call point has its own location indicator LED light (at the upper part) which helps it to easily find the location of manual call points in case of low light or black-out situation during fire occurrences.



KFI certificate no. (Korean version only)	bal13-3 | MCL-PA — Class-1, SPH panel bal13-4 | MCL-RA — Class-1, SRF panel bal13-5 | MCL-MA — Class-1. XLS panel
Mounting type	Semi recessed
Application area	Indoor only
Location indicator	LED indicator at top
Emergency communication	Fireman phone jack socket (in the middle position)
Current consumption	13mA
Housing material	Fire-proof PC
Color	Red
Fire standards	NFSC 203 sec 9
Supply voltage	DC 24V
Ambient temp	-10 ~ 50°C
Rel. humidity	0 ~ 90%
Weight	165g
Dimension	W142xH142xD46mm

Ordering ASN

PL-O



PL indicator lamp takes power from fire panel to indicate status of power and typically installed in hose boxes or in manual station enclosure in locations where it may have low light situation in case fire occurs. Indicator lamps made up of very long-life LED uses DC power and its polarity-free connection of internal bridge circuit makes it easy to install. With rounded corners & shape, this indicator lamp has been aesthetically designed.

As Siemens MCL manual station has internal indicator lamp when it is installed in a hose-box, separate indicator lamp may not be required to be additionally installed.

Category	LED type
Mounting type	Surface type
Application area	Indoor only
Current consumption	26mA
Illumination range	In both direction 15° Identified from 10m distance
Housing material	Fire-proof PC
Color	Red
Fire standards	NFSC 203 sec 9
Supply voltage	DC 24V
Ambient temp	-10 ~ 50□
Rel. humidity	0 ~ 90%
Weight	50g
Dimension	W87.5xH35xD20mm

PL

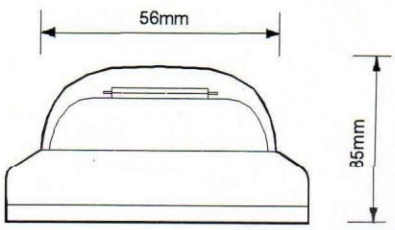
1. DESCRIPTION

The Strobe light is used to public building, corridor, passage, lobby, rest room, lecture room, dining room etc. In case of fire, it communicates with fire control panel that produces a flash and informed the residents (including visually handicapped).

To Installed no interrupted place such as ceiling or upper part of wall that shows the lighting of flash. If more than 6units of strobe light are flashing it makes a person or child to abnormal condition because of irregular flashings. Therefore it needs to use Synchronized control unit to control the flashing time to same period. It separately installed with synchronize type SIA and non synchronize type SIB. SI Strobe light effective brightness is over 15cd.

SI-15W SI-15R

동조기



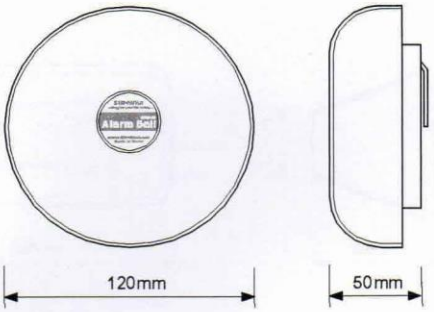
2. *SPECIFICATION*

- Model : SI Series
- Ambient temperature : −10 ~ 50℃
- Relative Humidity : 0 ~ 90%
- Rated of power : DC 24V
- Electric current consumption : 170mA
- Availability brightness : over 15cd (measured standard 6m distance)
- Flickering cycle : Non Corresponding period - 1.5Hz ~ 1.7Hz
  Corresponding period - 1.3Hz ~ 1.4Hz
- Number of connection per loop : Max 10 units
- Material : Nonflammable Polycarbonate
- Color : Red or White
- Fire safety regulation : NFSC 203 clause 8
- Ordering Information :

MODEL	STANDARD	ORDERING NO.	WEIGHT
SIC-15RE	Non Corresponding period / Red	9905-004-00	166g
SIA-15W	Non Corresponding period / White	9905-005-00	166g
SIB-15R	Corresponding period / Red	9905-006-00	166g
SIB-15W	Corresponding period / White	9905-007-00	166g
SN	Synchronized Control Unit	9905-008-00	86g

1. DESCRIPTION

The alarm bell is an alarm notification appliance which is operated by the start of a motor on the bell, receiving 24volt power from a fire alarm control panel when a fire alarm signal has been sent to the panel from a detector or manual fire alarm box. There are two sizes of motor alarm bells, i.e., a 150mm O.D. standard vibrating bell and a 120mm O.D. small vibrating bell. The small vibrating bell can be installed inside an indoor fire hydrant box easily.



2. SPECIFICATION

- Model : MB- 5
- Ambient temperature : − 10 ~ 50℃
- Relative Humidity : 0 ~ 90%
- Rated of power : DC 24V
- Electric current consumption : 50mA
- Sound : 90dB from 1m away
- Material : Aluminum die-casting
- Color : Red
- Fire safety regulation : NFSC 203 clause 8
- Ordering Information :

MODEL	STANDARD	ORDERING NO.	WEIGHT
MB- 5	120mm O.D.	9902-001-02	212g

SIEMENS

Remote Indicator

REL-1

1. DESCRIPTION

- REL-1 is a remote Indicating device which is connected to a fire detector.
- It indicates Fire Alarm through its red LED on the front

2. SPECIFICATION

- Model : REL-1
- Ambient temp. : -10 ~ 50℃
- Relative Humidity : 0~90%
- Voltage : DC 24V
- Current : 50mA max.
- Dimension : 100mm x 70mm x 5mm