### **Panasonic**



## INTELLIGENT MONITORING FOR SAFER BUSINESS

### **PANASONIC FIRE ALARM SOLUTIONS**

TECHNOLOGY FOR A BETTER WORKING WORLD



#### Smart flexible detector algorithms

Our smart flexible detector algorithm improves the detection functionality of multi detector units, and is now available equipped with Artificial Intelligence capability. There are up to five working modes inside the detector, which selects the relevant mode automatically by 'learning' from the surrounding environment.

### Improved detector chamber with extremely fine mesh net

Following extensive research into detector reliability, Panasonic identified that 78% of unwanted alarms were caused by dust or insects – both capable of passing through traditional detector meshnets. We have reduced our mesh net to just 0.3mm, reducing cases of unwanted alarms dramatically.

#### **Constant smoke contamination monitoring**

Our fire systems are constantly monitoring the levels of smoke contamination with detectors, lower ongoing maintenance costs and maintaining a consistent level of sensitivity.

#### Tested not once, but twice

Smoke detectors are life-saving devices. So every Panasonic smoke detector is tested twice with real smoke during the production process. We never use statistical, theoretical testing methods, ensuring the highest possible levels of reliability.

#### **High noise immunity**

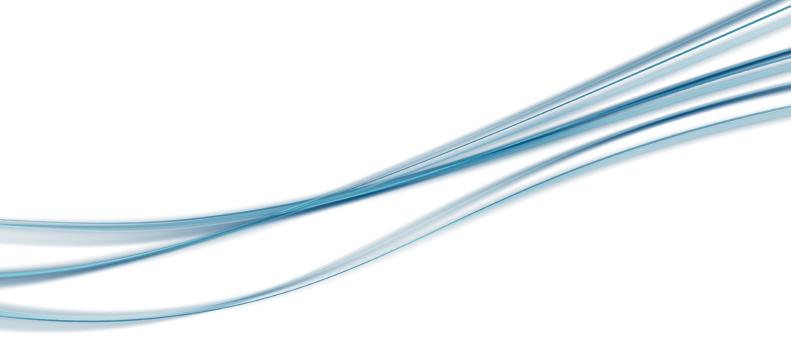
Panasonic NMAST communication technology provides high noise immunity – ideal for installations in heavy industry, power plants, hospitals and universities where noise can have a negative impact on fire detection.

#### **Multi-master configuration**

Control panels can be connected in a multi-master arrangement, with up to 30 panels allowing wide distribution throughout premises.

#### **WEB** server integration

With Panasonic fire systems, it's possible to install a WEB server inside the control panel, allowing full access over TCP/IP.



# THE COMPREHENSIVE SOLUTION TO A CRITICAL BUSINESS RISK

While all buildings are required by law to install some form of fire detection system, it takes more than a simple alarm to provide the security and safety a business requires. Panasonic's fire solutions are designed to provide all-round protection in every professional setting – and are now available in combination with Panasonic security camera systems. This combination of alarm sensors and Full HD video images creates a comprehensive security and monitoring solution that safeguards both premises and the continued operation of large-scale businesses and organisations.



#### Solutions for healthcare



To protect patients, staff, premises and the life-saving equipment inside, Panasonic has developed a range of fire solutions with the precise requirements of hospitals in mind. A range of programmable functions, intelligent algorithms and the ability to monitor multiple zones mean early, safe and reliable fire detection and prevention is achieved, in the most critical of environments.

#### **Solutions for education**



With the challenge of maintaining safety and ongoing operation across multiple sites, universities require the best possible fire detection and prevention solutions. Panasonic provides both, with proven reliability and cutting-edge technology able to deliver the level of protection needed to safeguard students and staff, and avoid the unnecessary expense and inconvenience of false alarms.





#### **Solutions for industry**



Time lost due to either the outbreak or false reporting of fire can be, at best, damaging and, at worst, disastrous for the managers of industrial sites and power plants. Thanks to the flexible, multi-zone, intelligent capabilities of Panasonic's fire solutions, however, this risk can be mitigated, with systems capable of operating in the specific and often unique surroundings of industrial premises.

#### **Solutions for transportation**



Real-time security evaluation is essential in crowded places such as airports and train stations to provide the necessary prevention to ensure a high quality service that provides safety to millions of daily passengers. Panasonic technologies adapt to each environment offering a more customised solutions.

## FIRE ALARM SYSTEMS EBL512G3 AND EBL128



#### General

EBL51263 and EBL128 are analog addressable fire alarm systems which can also be used with addressable detectors, inputs and outputs as well as with conventional detectors. Both fulfill the EN54 standards: EN54 part 2 (Control and indicating equipment) and EN54 part 4 (Power supply). Detectors, manual call points, and general input and output units for free programmable customer specific functions can be connected to the COM loops. Each loop unit uses one address.

#### EBL512G3 and EBL128 - a unique concept for early and safe detection without false alarms

- EBL512G3 and EBL128 are a new generation of fire alarm systems.
   With a unique functionality in cooperation with adaptation to the surrounding environment, self-diagnostics and interactivity, the system can be installed in most premises.
- Each analog detector in the system is individually adapted to the surrounding environment. The sensitivity of each analog detector is constant in spite of the individual contamination or background particle level. The long-term changes are, for example, distinguished from the short-term changes of a smouldering fire.
- Intelligent alarm algorithms and a unique self learning algorithm to detect smouldering fires.
- The self-diagnostics function detects every deviation from the accurate normal condition in the electronics and in the detection chamber
- With the new 440x detectors an advanced learning function,
   i.e. the detectors will adapt the alarm algorithm most suitable for
   the actual environment. The interactivity function uses information
   from one, two or more detectors in the system to increase reliability
   in detection of a real fire.

 A family of state of the art analog detectors gives the c.i.e. accurate and noise-free information about occurrence of smoke and/or temperature changes in the installation.

## A large variety of units can be connected to the COM loop:

- · Analog addressable smoke and heat detectors
- Waterproof heat detectors
- · Addressable manual call points
- Addressable short circuit isolators
- Addressable sirens/sounder bases
- Addressable I/O units, also with monitored voltage outputs
- Addressable power supplies
- Conventional detectors via I/O units



## FIRE ALARM SYSTEMS CONTROL AND INDICATING EQUIPMENT C.I.E.



#### EBL512G3, 5000, 5001

#### **Features**

- EBL512G3 the third generation of the intelligent analog addressable system EBL512G3
- Up to 1020 addresses of which up to 512 can be alarm points per control and indicating equipment (c.i.e.)
- Redundant network for up to 30 control units with two TLON networks

#### Type numbers

**5000:** EBL512G3 c.i.e. with or without a printer and for 128, 256 or 512 alarm points – depending on the article number. Supplied with a standard mounting plate approved for an incombustible wall (e.g. concrete).

**5001:** EBL512G3 c.i.e. A 'grey box' with no front, no display and no door with plexiglass. 128, 256 or 512 alarm points – depending on the article number. Supplied with a standard mounting plate approved for an incombustible wall (e.g. concrete).

**5020:** Mounting plate for 19" mounting rack. For one 5000 / 5001.

**5021:** Mounting plate for inflammable wall (e.g. wood). For one 5000 / 5001.

**5059:** Paper roll (spare part for the printer mounted in 5000).

**5013:** Cabinet for drawings.

**4580:** 8 zones expansion board (8 zone line inputs for conventional detectors).

**4581:** 8 relays expansion board (8 programmable relay outputs).

**4583:** In- and outputs expansion board. 3 outputs and 5 inputs.

**5089:** Connection cable for up to six expansion boards (4580-4583).

**5090:** TLON connection board – required for a TLON network. One board in each c.i.e.

NOTE: For redundant network are two 5090 boards required in each c.i.e.





#### EBL128, 4550

#### **Features**

- EBL128, an intelligent analog addressable fire alarm system for up to 256 addresses (version 2.0)
- Auto generation of the site specific data for easier c.i.e. programming

#### **Type numbers**

4550: EBL128 c.i.e. (256 addresses). Batteries are not included.

**4552:** RS485 transceiver component, for up to four display units, i.e. external fire brigade panels 1826/1828, external presentation unit 1728 and/or alert annunciation units 1735 / 1736.

**4551:** Expansion board holder. (For two 4580 and two 4581 expansion boards.)

4580: 8 zones expansion board. (Max. two per c.i.e.)

4581: 8 relays expansion board. (Max. two per c.i.e.)

The 4580 board can be used to connect conventional detectors and manual call points to EBL128. An end-of-line capacitor (470nF) shall be connected in the last alarm point on each zone line. More information is available in the EBL128 Planning Instructions and Operating Instructions.









### EXTERNAL FIRE BRIGADE PANEL 1826

#### **Features**

- Control and indicating panel for the fire brigade personnel
- Built-in printer (option)

#### **Type numbers**

**1826:** External Fire Brigade Panel.

**1835:** Printer for External Fire Brigade Panel 1826.

**4552:** RS485 Transceiver component / comm. module. (Required in EBL128. Only SW mode 1826/28 – 1587 can be used.)



## EXTERNAL FIRE BRIGADE PANEL 1828

#### **Features**

- Control and indicating panel for the fire brigade personnel (key required)
- Indicating panel for all personnel (key not required)
- Compact size

#### Type numbers

1828: External Fire Brigade Panel.

**4552:** RS485 Transceiver component/comm. module. (Required in EBL128. Only SW mode 1826/28 – 1587 can be used.)



### **ALERT ANNUNCIATION UNITS 1735 AND 1736**

#### **Features**

- Control and indicating unit for alert annunciation
- Compact size

#### **Type numbers**

**1735:** Alert annunciation unit. Swedish designation texts.

**1736:** Alert annunciation unit. Designation texts in any language.

**4552:** RS485 transceiver component, for connection of up to four display units, e.g. Alert Annunciation Units 1735 / 1736 in system EBL128.

## FIRE ALARM SYSTEMS ANALOG / ADDRESSABLE DETECTORS





- Common base for the different analog detectors
- Easy connections including output for external LED
- Label holder recess

#### Type numbers

3312: Analog base.

**3390:** Label holder (100 holders per packet, excluding labels).

**3391:** Labels for 3390 (10 sheets à 132 labels).



## ANALOG BASE WITH SHORT CIRCUIT ISOLATOR 4313

#### **Features**

- Common base for the different analog detectors
- Built-in short circuit isolator
- Easy connections incl. output for external LED
- Comes with a white protection cover to be used when no detector is plugged in the base

#### **Type numbers**

4313: Analog base with isolator.

**3390:** Label holder (100 holders per packet, excl. labels).

**3391:** Labels for 3390 (10 sheets à 132 labels).





### ANALOG BASE 3312F / FL Features

- Common base for the different analog detectors
- Fast connectors
- · Label holder recess

#### **Type numbers**

**3312F:** Analog base with fast connectors (blue) for the COM loop.

**3312FL:** Analog base with fast connectors (blue) for the COM loop and fast connectors (gray) for one ext. LED (e.g. 2218).

**3390:** Label holder (100 holders per packet, excl. labels).

**3391:** Labels for 3390 (10 sheets à 132 labels).





#### **ANALOG MULTI DETECTOR 4400**

#### **Features**

- Constant sensitivity / Service signal at a fixed level of contamination
- Advanced algorithms and functions and yet compatible with older EBL systems
- Can be used in an Advanced mode with the newest alarm algorithms
- In Advanced mode a learning function can be used, i.e. the detector will adapt the alarm algorithm most suitable for the actual environment

#### Type numbers

4400: Analog multi detector.



### ANALOG PHOTOELECTRIC SMOKE DETECTOR 4401

#### **Features**

- Constant sensitivity / Service signal at a fixed level of contamination
- Advanced algorithms and functions and yet compatible with older EBL systems
- Can be used in an Advanced mode with the newest alarm algorithms
- In Advanced mode a learning function can be used, i.e. the detector will adapt the alarm algorithm most suitable for the actual environment

#### Type numbers

**4401:** Analog photoelectric smoke detector.



### ENCLOSED ANALOG HEAT DETECTOR 3309

#### **Features**

- Different modes for compatibility with other EBL systems / detectors
- Algorithms for class A1, A2 S or B S
- 🐼 ATEX compliance
- Waterproof (IP67)

#### **Type numbers**

**3309:** Enclosed analog heat detector (including connection box, 3 compression glands and gasket).

**3390:** Label holder (100 holders per packet, excluding labels).

**3391:** Labels for 3390 (10 sheets à 132 labels).



#### **ANALOG HEAT DETECTOR 3308**

#### **Features**

- Different modes for compatibility with other EBL systems
- Algorithms for class A1, A2 Sor B S

#### **Type numbers**

3308: Analog heat detector

#### FIRE ALARM SYSTEMS

#### **CONVENTIONAL DETECTORS / UNITS FOR ZONE LINE INPUTS**



## BASE 2324 Features

- Common base for the different conventional detectors
- Easy connections incl. output for external LED
- · Locking mechanism

#### Type numbers

2324: Base (for conventional detectors).



## COMBINATION HEAT DETECTOR 4318

#### **Features**

- · Conventional heat detector
- Rate-of-rise and fixed temperature (59°C) alarm level

#### **Type numbers**

4318: Combination heat detector.



#### HEAT DETECTORS 4375 AND 4376

#### **Features**

- Conventional heat detector
- Fixed temperature (static) alarm level

#### Type numbers

4375: Heat detector, 60°C, class A2 S.

4376: Heat detector, 80°C, class B S.



### PHOTOELECTRIC SMOKE DETECTOR 4452

#### **Features**

- A conventional (not analog) smoke detector
- · Low profile design
- Latest IC technology / highest reliability
- · Unleaded soldering

#### Type numbers

4452: Photoelectric smoke detector.







#### UNITS FOR HAZARDOUS (EX) AREAS – ANALOG DETECTORS

#### **Features**

- Approved Intrinsically Safe barrier unit and detectors
- The detectors are connected to the Barrier unit, which is connected to a COM loop
- The Barrier unit requires a 24 V DC

#### **Type numbers**

**2840:** Intrinsically safe IS Analog photoelectric smoke detector.

**2841:** Intrinsically safe IS Analog heat detector.

**2842:** Intrinsically safe IS Barrier unit (including five compression glands).

**2843**: Intrinsically safe IS back-box for 2840 and 2841. Including two compression glands.



## UNITS FOR HAZARDOUS (EX) AREAS – CONVENTIONAL DETECTORS

#### **Features**

- Approved Intrinsically Safe interface, isolator and detectors
- The intrinsically safe units are connected to a Galvanic isolator (2820)
- The Galvanic isolator (2820) can be connected to a conventional zone line input or to an I/O unit 3361 connected to a COM loop
- The Isolated zone interface box has space and a mounting plate for an I/O unit 3361
- The isolated zone interface require external 24 V DC

#### Type numbers

**2822:** Isolated zone interface (including waterproof box and four compression glands).

**2823:** Isolated zone interface board (spare part).

**MTL5061**: Galvanic isolator (including waterproof box and four compression glands) (2820).

YBN-R/4IS: Intrinsically safe mounting base (2812).

**SLR-E-IS:** Intrinsically safe photoelectric smoke detector (2810).

**DCD-1E-IS:** Intrinsically safe heat detector (2811).

**MCP1A-R470SGIS:** Intrinsically safe manual call point (incl. back-box and a transparent protection flap) (2814).



## ENCLOSED HEAT DETECTORS 6295, 6296, 6297, 6298

#### **Features**

- Conventional heat detector
- Fixed temperature alarm level
- **ऒ** ATEX compliance
- · Waterproof (IP67)

#### Type numbers

6295: Enclosed heat detector, 57°C, class A2 S (54 to 70°C).

**6296:** Enclosed heat detector, 72°C, class BS (69 to 85°C).

6297: Enclosed heat detector, 87°C, class CS (84 to 100°C).

6298: Enclosed heat detector, 117°C, class ES (114 to 130°C).

**3390:** Label holder (100 holders per packet, excluding labels).

**3391:** Labels for 3390 (10 sheets à 132 labels).

## FIRE ALARM SYSTEMS ADDRESSABLE COM LOOP UNITS



## ADDRESSABLE MANUAL CALL POINT WITH ISOLATOR 4433

#### **Features**

- Built-in short circuit isolator
- Attractive design compliant with EN54-11
- Test key for routine testing without breaking the glass element
- Protection against accidental operation

#### **Type numbers**

4433: Addressable manual call point with isolator.

2347: Replacement glass (10 pcs.)

**2348:** Replacement polycarbonate cover (10 pcs.)



### ENCLOSED ADDRESSABLE MANUAL CALL POINT 4439

#### **Features**

- Built-in short circuit isolator
- Attractive design compliant with EN54-11. IP rating IP56
- Test key for routine testing without breaking the glass element
- Protection against accidental operation

#### **Type numbers**

4439: Enclosed addressable manual call point with isolator.

2347: Replacement glass (10 pcs.)

**2348:** Replacement polycarbonate cover (10 pcs.)





## ADDRESSABLE MULTIPURPOSE I/O UNIT 3361 Features

- Two programmable relay outputs
- Two programmable inputs (one can be used as a zone line input)

#### Type numbers

**3361:** Addressable multipurpose I/O unit (including plastic protection cover).

**3362:** Waterproof box (IP66/67) (including four compression glands).

**3363:** DIN rail interface kit, for symmetric 35mm DIN rail (plate, clamp and screws).





## ADDRESSABLE 2 VOLTAGE OUTPUTS UNIT 3364 Features

- Two programmable supervised voltage outputs (24V DC, 1A)
- A special fire door closing voltage output

#### Type numbers

**3364:** Addressable 2 voltage outputs unit (including plastic protection cover and two 470nF capacitors).

**3362:** Waterproof box (IP66/67) (including four compression glands).

**3363:** DIN rail interface kit, for symmetric 35mm DIN rail (plate, clamp and screws).

**3366:** External power supply. (230V AC / 24V DC, 2.2 alt. 0.85A).



## **EXTERNAL POWER SUPPLY 3366**Features

- Connected to a COM loop
- Monitored from the c.i.e.
- 230V AC / 24V DC, (2.1 alt. 0.85A)
- Space for batteries inside the housing

#### **Type numbers**

**3366:** External power supply (batteries are not included).



## ADDRESSABLE SOUNDER BASE 3379 Features

- High or low sound output
- Three different tones and priority levels
- Connected directly on the COM loop

#### **Type numbers**

**3379:** Addressable sounder base (sounder and a special version of analog base 3312).



## FIRE ALARM SYSTEMS **ADDRESSABLE COM LOOP UNITS**



## ADDRESSABLE SIREN WITH ISOLATOR 4477 Features

- Built-in short circuit isolator
- High sound output but low current consumption
- Three different tones and priority levels
- Connected directly on the COM loop

#### Type numbers

**4477:** Addressable siren with isolator.



## ADDRESSABLE BEACON 4380 Features

- Low current consumption thanks to LED technology
- Shallow (20 mm) or deep (50 mm) base
- Connected directly on the COM loop

#### **Type numbers**

**4380:** Addressable beacon with shallow (S) base.

**4382:** Deep (D) base for 4380.



#### LIGHT INDICATOR 4383 Features

- Placed between an analog detector base and the analog detector
- Low current consumption thanks to LED technology

#### **Type numbers**

4383: Light indicator.

## FIRE ALARM SYSTEMS DISPLAY UNITS OPTIONS, ACCESSORIES

#### **WEB-SERVER II 1598**

#### **Features**

- Web-server II, 1598; second Web-server generation
- Increased memory and faster CPU
- The same hardware is used for the Webserver function and can at the same time be a gateway to other systems

#### **Type numbers**

**1598:** Web-server II, incl. cable & accessories kit (The RS232C and power supply cables for systems EBL512G3 and EBL128 are supplied.)

- Remote monitoring over TCP/IP using WEB interface
- Full control of the control panel remotely
- Easy access to the web interface of the IP cameras
- Interoperability with other systems like:
  - Security Management Systems
  - Panasonic CCVE solutions
  - Several drivers and protocols (EBLnet, EBLtalk, Modbus, OPC server,...) for an easy integration



## FIRE ALARM SYSTEMS **DETECTOR ACCESSORIES**



### EXTERNAL INDICATOR (LED) 2218

#### **Features**

- Symbol instead of text
- One indicator for all detector types

#### **Type numbers**

2218: External indicator (LED)



## DUCT DETECTOR CHAMBER UG-4 6377

#### **Features**

- Patented venturi pipe and duct housing
   only one pipe is required
- User friendly installation
- For conventional as well as analog and addressable systems
- Pipe with a built-in fan is available Waterproof (IP67)

#### **Type numbers**

**6377:** UG-4 duct detector chamber – incl. standard mounting accessories. (NOTE! Detector & base have to be ordered separately.)

6380-06: UG-4 pipe 0.6 m.

**6380-15:** UG-4 pipe 1.5 m – incl. plastic end gasket and rubber gasket TET 26-35.

**6380-28:** UG-4 pipe 2.8 m – incl. plastic end gasket and rubber gasket TET 26-35.

**6381-06** 1: UG-4 pipe 0.6 m with built-in fan. (Ext. 24 V AC required.)

**6381-15** 1: UG-4 pipe 1.5 m with built-in fan – incl. plastic end gasket and rubber gasket TET 26-35.) (Ext. 24 V AC required.)

**6381-28** <sup>1</sup>: UG-4 pipe 2.8 m with built-in fan – incl. plastic end gasket and rubber gasket TET 26-35.) (Ext. 24 V AC required.)

6382 1: UG-4 bracket.

**6384:** UG-4 filter (10 pieces).

**6385:** UG-4 rubber gasket TET 26-35 (spare part).

1) The UG-4 bracket 6382 is required for the mounting of 6377 when a pipe with fan (6381-xx) is used.





### INTEGRATED, INTELLIGENT PROTECTION

Fire is just one of the physical risks to your business. With Panasonic, you have the option to integrate your fire detection technology into wider solutions, providing seamless, more comprehensive security and monitoring.

Combine our fire alarms with our market-leading security surveillance systems and you benefit from the reassurance of having proven, ultra-reliable technology at work throughout your premises. Our expandable, interoperable systems deliver greater value, reduce workloads and improve effectiveness, creating flexible, intelligent industrial all-round protection systems in every professional setting.

Using the WEB-server module, we can connect the fire alarm system via TCP/IP with CCVE monitoring software, the WV-ASM200, and also with CCVE IP virtual matrix, the WV-ASC970/ASM970. This interoperability between both systems makes life easier for the operator by linking the fire and fault alarms from the control panel with the live and playback video from the cameras and recorders. This allows the operator to realise the situation in real

time from the control room enabling them to take action quickly and safely.

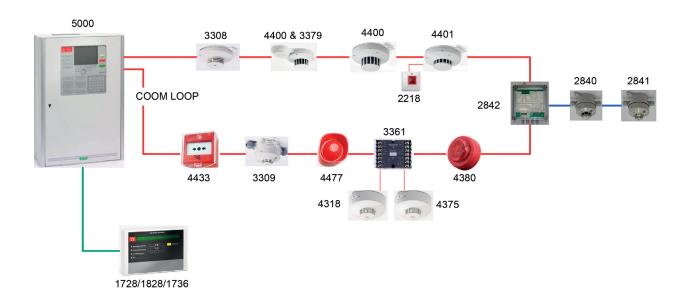
In addition, both CCVE monitoring systems (WV-ASM200 and WV-ASM970) provide a map window where all the fire detector icons can be added. This allows security personnel to easily check the status of all the detectors, which blink when there is an alarm.



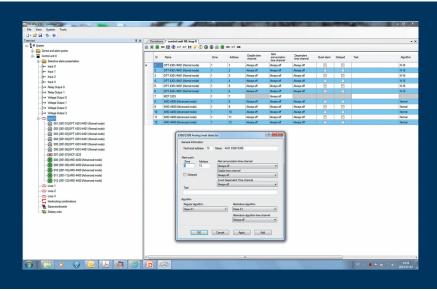
## PLANNING, COMMISSIONING AND INSTALLATION TOOL EBLWIN

Modern fire alarm systems are very complex and versatile. In order to get the optimal performance and cost effective planning, installation, commissioning and maintenance of a system, we provide EBLWin – a powerful Windows based PC tool. EBLWin is a complete support package for the systems EBL128 and EBL512 G3. All configurations and settings for the system (SSD) are done in the PC and after that downloaded to the c.i.e. For faster and easier commissioning, an "SSD auto generation function" is available.

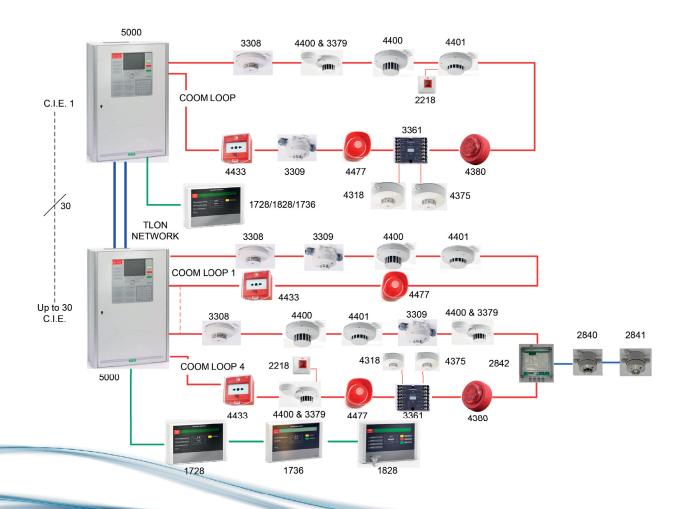
## EBL512G3 STAND ALONE FIRE ALARM SYSTEM system overview:



Panasonic fire alarm systems are designed to accommodate both stand alone and large system requirements using different control and indicating units (C.I.E.) called control panels. Growing up from a stand alone installation with the EBL512G3 up to 30,600 devices can be connected through 30 control panels with 4 detector loops each.



## EBL512G3 FOR LARGE FIRE ALARM SYSTEMS system overview:



### **Panasonic**

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We expressly reserve the right to make reasonable changes to models, dimensions, colours as well as to make modifications that bring our products in line with state-of-the-art technology.

Panasonic has been successfully tested to the highest standards, ensuring high quality and reliable fire alarm solutions.













