Fire alarm system EBL512

An analog addressable fire alarm system
for early detection without unwanted alarms

Panasonic

www.panasonic-fire-security.com

The demands on fire alarm systems are increasing. The system must have the highest possible alert during the normal daily activities, i.e. the most important task for a fire alarm system is an early detection of a fire in order to save life and property in different environments. Difficult detected fires, such as glowing or smouldering fires, have to be quickly and effectively detected.
On the other hand, you also want to reduce the nuisance alarms to a minimum, i.e. the system has to have a high sensitivity and a low sensitivity "at the same time".
The system is also exposed to an increasing number of interferences such as mobile telephones and disturbances from the surrounding environment.
All these demands require an intelligent system, i.e. both the c.i.e. and the detectors have to be intelligent.

General

EBL512 is an analog addressable fire alarm system.
EBL512 fulfils the EN54 standards: EN54 part 2 (Control and Indicating Equipment) and EN54 part 4 (Power Supply).
The c.i.e. can, on four COM loops, handle up to 512 input and/or output units, i.e. detectors, manual call points, general in and output units for free programmable user definable functions, etc. Each loop unit uses one address.
Conventional detectors can also be used in the system.

Control and Indication Equipment EBL512

EBL512 can work as a standalone unit or in a TLON-network with up to 30 units.

Every c.i.e. has access to all the information from the other units in the same network. The total number of addresses in a system is accordingly more than 15.000!

EBL512 - a unique concept for early and safe detection without any nuisance alarms

EBL512 is a new generation of fire alarm systems with a unique functionality and many built-in functions. Advanced alarm algorithms, compensation for contamination, self-diagnostics and inter activity makes the system suitable for almost any premises.

- Each analog detector in the system is individually super-vised and the sensitivity of each analog detector is constant, in spite of any contamination or background particles. Also the long-term changes as e.g. contamination are treated differently from the short-term changes as e.g. a smouldering fire.
- The self-diagnostics function detects every deviation from the accurate normal condition in the electronics and in the detection chamber.

- The inter activity function is using information from one, two or a larger number of detectors in the system to provide a more secure 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.

The analog detector types 33xx (left) received a design award at the 1998 Hanover Exhibition. The newer analog detector types 43xx (right) have an even more attractive & slender design.

A large variety of units can be connected to the four COM loops:

- Analog detectors
- Conventional detectors
- Intrinsically Safe (IS) detectors
- Water proof heat detectors
- Addressable manual call points
- Addressable short circuit isolators
- Addressable I/O units (inputs / supervised voltage outputs as well as relay outputs)
- Addressable sirens / sounder bases

The EL512 fire alarm system has a set of functions that meets the most stringent requirements relating to fire detection, fire presentation and measures.

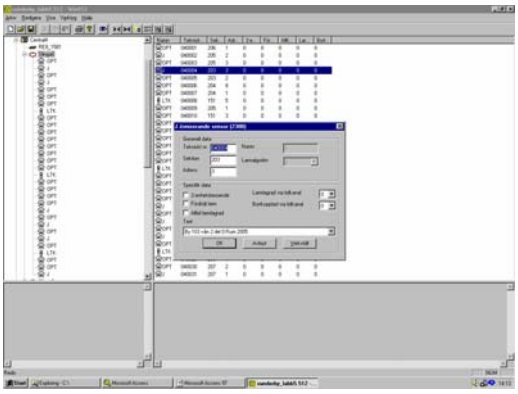
- Service signal is given when a detector is contaminated to a certain level.
- A large number of alarm algorithms is supported by the system and can be set for each analog detector individually.
- Alert annunciation. The output for the alarm transmitter can be delayed for immediate on site investigation of a fire alarm.
- Individual detectors, zones, programmable outputs and outputs for the alarm transmitter can be individually disabled.
- Internally and/or externally controlled time channels. E.g. one or more alarm points may be disabled via a time channel.
- Outputs can be programmed in a very flexible way enabling control of sirens, fire doors, extinguishing systems etc.
- External Fire brigade panels can be connected to each c.i.e.
- Presentation of the actual system status in a PC or Pocket-PC via the **Web-server II** connected to an intranet (LAN) or Internet. Remote control with encrypted and safe two-way communication. In case of fire alarm, service signal etc. e-mails can be sent to the adequate personnel. Provides also one-way communication to an external computer system.
- The **Web-server II** (the HW) can be used with the OPC512 SW and connected to a PC with Panasonic FP OPC Server SW for a reliable connection to your industrial applications (clients).

The TLON Network

Up to 30 nodes (i.e. EBL512 c.i.e:s) can be connected to a TLON Network. One of the nodes can be an external PC with a software driver for a Security Management system, which gives full control of and access to all data in all EBL512 connected to the network.

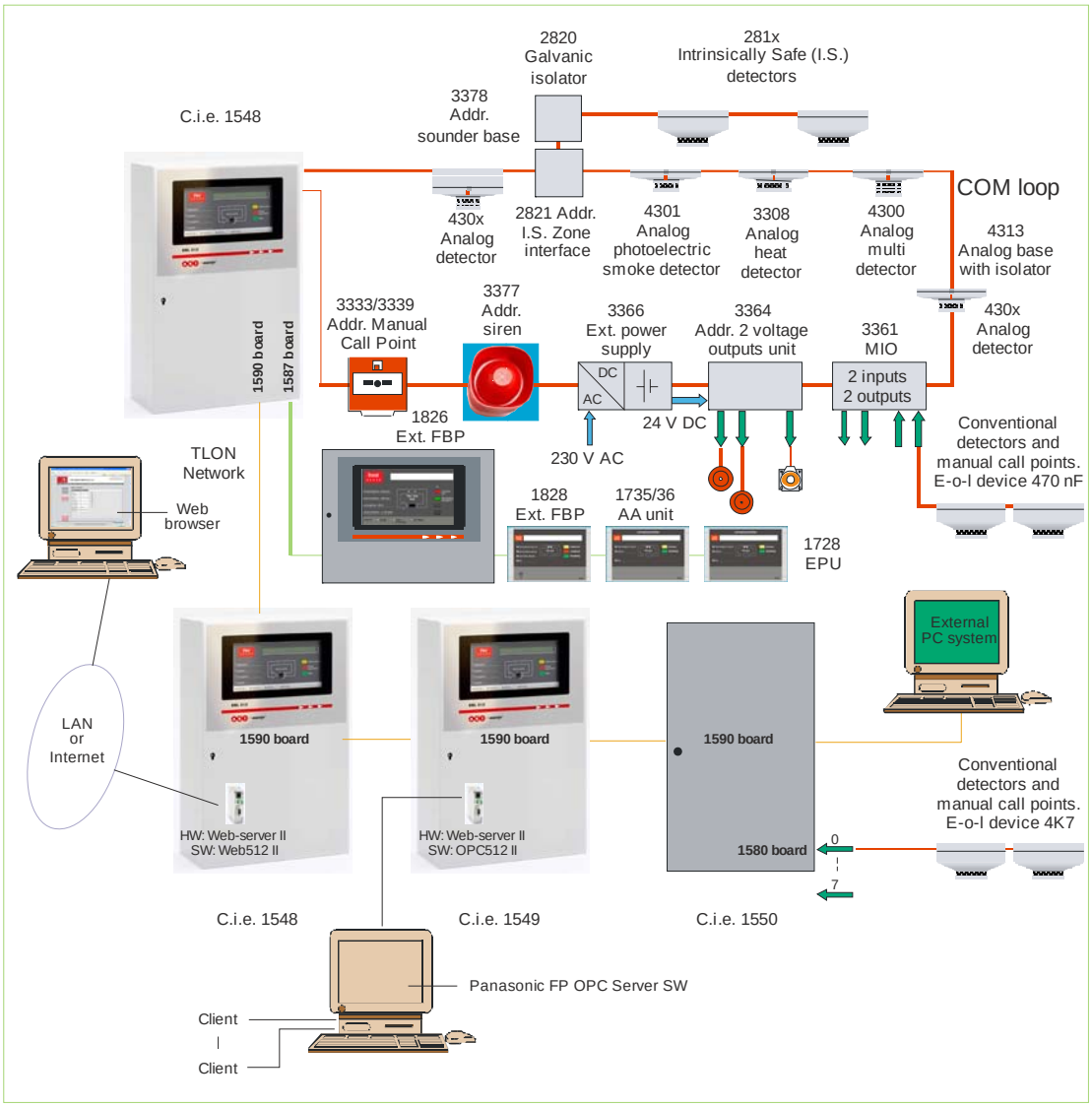
Planning, commissioning and installation tool Win512

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 our distributors with a powerful tool. This tool is the Windows based PC software **Win512**, which is a complete support packet for the EBL512 system. All configurations and settings for the system are done in Win512 and downloaded to the c.i.e. respectively.



Win512 is used when planning an installation. After the planning, the "site specific data" is downloaded to the c.i.e. respectively. The data can also be uploaded from the c.i.e. Win512 is also used to download new software, etc.

System overview



Products in the EBL512 system

Control and Indication Equipment (c.i.e.)

1548	EBL512 CU 512 addresses
1549	EBL512 CU 512 addresses with printer
1550	EBL512 CU 512 addresses without front
1572	Cabinet for drawings

Expansion boards, etc.

1580	8 conventional zones expansion board (8 zone line inputs)
1581	8 relays expansion board
1587	External Fire Brigade Panel / DU interface board
1598	Web-server II (SW: Web512 II or OPC512 II downloaded via a config. tool.)
1590	TLON connection board

Display Units, etc.

1728	External Presentation Unit (EPU; Designation texts in Swedish / English)
1735 / 1736	Alert Annunciation Unit (AAU; Designation texts in Swedish / other language)
1826 / 1828	External Fire Brigade Panel (Ext. FBP; Metal / ABS plastic housing)
4513	Cabinet for drawings (to be mounted together with 1826)

Analog Detectors

3308	Analog heat detector *
3309	Analog heat detector, water proof
3312	Analog base (For analog detectors)
3312F	Analog base (For analog detectors) Fast connectors.
3312FL	Analog base (For analog detectors) Fast connectors. Ext. LED output.
4300	Analog multi detector *
4301	Analog photoelectric smoke detector *
4313	Analog base with isolator (For analog detectors)

* Detector to be plugged in Analog base 3312 or 4313.

Conventional Detectors (connected to a COM loop via a zone line input, e.g. 3361)

2324	Base (For conventional detectors)
4318	Combination heat detector ** (59 degrees + rate-of-rise)
4350	Multi detector **
4352	Photoelectric smoke detector **
4375	Heat detector 60 degrees **
4376	Heat detector 80 degrees **
6295	Heat detector 60 degrees, water proof
6296	Heat detector 80 degrees, water proof
6297	Heat detector 100 degrees, water proof
6298	Heat detector 120 degrees, water proof

** Detector to be plugged in Base 2324.

Intrinsically Safe Detectors (connected to COM loop via 2821)

2810	IS photoelectric smoke detector ***
2811	IS heat detector ***
2812	IS base
2820	Galvanic isolator
2821	IS Zone interface

*** Detector to be plugged in IS base 2812.

Other peripheral devices

2218	External indicator (ext. LED)
3314	Address setting tool for the units connected to the COM loops
3333	Addressable manual call point
3339	Addressable manual call point, water proof
3361	Addressable Multipurpose I/O unit (Two inputs & two outputs)
3364	Addressable 2 voltage outputs unit
3366	External power supply (Addressable)
3377	Addressable siren
3378	Addressable sounder base (for analog detectors)
4582	I/O Matrix board

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