### **Panasonic**



# Intelligent monitoring for safer business

Safety innovation, our passion

# SAFETY INNOVATION, OUR PASSION



Panasonic's history in the fire alarm industry started already in 1965, when the first products were launched in Japan. In Europe we had to wait until the 1970's when the Matsushita detectors were first introduced in Sweden, together with control panels from Elsystem AB. In the mid 80's the Swedish company name and owners were

changed and the first addressable system was introduced. Based on the same robust loop protocol that is used today, of course continuously refined and extended.

Development has since then been running in close cooperation between Sweden and Japan. First in a customer and supplier partnership, but since 1999 is the European operation an integrated and highly appreciated part of the Panasonic corporation.

For us is innovation in the DNA of our company. We are leaders in investment in R&D and react quickly and focused on customer needs thanks to our development center in Europe and long term and close cooperation with our partners and customers.

Panasonic Fire & Security is made up of people who are passionate about what they do. We strive to develop products and solutions that reflect that passion for technology, innovation and safety. Our local presence also allows us to transfer that passion and closeness via our technical support and training service, which will accompany you in all phases of your projects.

Here follows a small of list of some of the innovations delivered by us over the years. Anyone who joins the journey will see more applications and products introduced, in our constant strive for improved safety and an easier life for everyone being in contact with our equipment. > Constant sensitivity with compensation for long time

- contamination
- > Service signal
- > Programable presentation number
- > Free programming of outputs using Boolean algebra.
- > Full control of all panels from any point
- > One man testing
- > Al based learning detectors
- > Remote monitoring and operation of fire alarm systems
- > Loop expander
- > Touch display with multiple applications
- > Full integration with Emergency & Exit Lights



# CHOOSE PANASONIC FIRE SOLUTIONS AND YOU WILL GET WORLD-CLASS PROTECTION

With more than 35 years' experience in the development of fire alarm solutions, and installations in over 15,000 buildings, Panasonic provides technology that's designed not just to alert you to the outbreak of fire, but also to guide you in the safest way during an emergency situation.

A track record of safety and success – our fire solutions are proven in many industries, delivering high levels of accuracy and few false alarms.

Lower total cost of ownership – because our solutions

Lower total cost of ownership – because our solutions achieve outstanding levels of reliability and are easily installed, maintained and managed, the cost to the end user is reduced over the lifetime of the system. Affordable technology, at your service for a long time.

#### **Smart flexible detector algorithms**

Our detector algorithms are based on artificial intelligence and optimises the detection functionality in every environment. There are up to five VdS approved algorithms inside the detector, which selects the correct mode automatically by evaluating and '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 mesh nets. We have reduced our mesh net to just 0.3mm, minimizing the cases of unwanted alarms dramatically.

#### **Constant contamination monitoring**

Our detectors are constantly monitoring the levels of contamination, and has sensitivity compensation making the detector as accurate from the day it is installed until end of life. This maintains a high and consistent level of protection, and at the same time lowers the maintenance costs.

#### 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 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**

Panasonic fire alarm systems can be expanded over time in the most flexible way, by just adding control panels in wherever location it makes most sense. Then only connect them directly to the network via optical fiber or copper wires - mix them as you wish.

#### Friendly for all kind of users

It doesn't matter if you a commissioning engineer, maintenance technician or building officer, Panasonic has developed software solutions that makes your life easier every day.



# 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 solutions are designed to provide all-round protection in every professional setting – in combination with onvif 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 alarm solutions with the precise requirements of hospitals in mind. A range of programmable functions, intelligent algorithms, and the ability to fully flexibly distribute information. This makes it possible for the staff to focus on what is relevant, even in the most critical situations.

# Solutions for data centers

Data centers and server halls often contains the most critical assets in any operation. Protection of these business critical systems require the earliest possible detection of hazards, which is exactly what Panasonic can provide.

#### **Solutions for logistic**

Complex storage solutions, dusty environments, big variations in temperature and airflow and sometimes even freeze rooms with temperatures down to -25 degrees. These are challanges where Panasonic's robustness has proved to be ideal





#### **Solutions for industry**

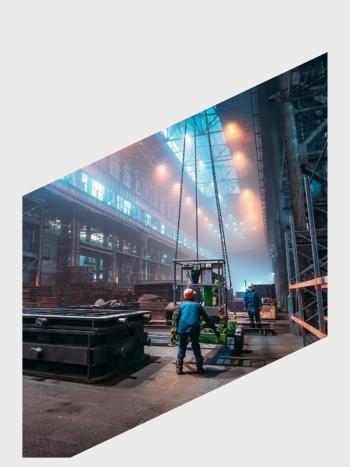
Time lost due to either the outbreak or false reporting of a fire can be, at best, damaging and, at worst, disastrous for the managers of industrial sites and power plants. Thanks to the flexible, robust, intelligent capabilities of Panasonic's fire solutions, this risk can be mitigated, with systems capable of operating in the specific and often unique conditions in 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's unique integration of exit- and emergency lights with the fire alarm system, provides the safest evacuation possible.

#### **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 nuisance alarms.





## **EBL SYSTEM**



EBL fire alarm system is the result of more than 35 years of continuous innovation in fire alarm systems. A unique concept where each detector adapts individually to the environment, thanks to a detection technology based on Artificial Intelligence. Technology designed to provide early, safe and reliable fire detection even in the most critical environments and often, with unique assets.

#### **Total integration**

The CIE provides the full integration between the fire alarm system and the emergency and exit light system. All units are connected to the same COM loop providing full and individual control and monitoring of each unit.

# A unique concept for early and safe detection without nuisance alarms

With a unique functionality in combination with detectors that adapt to the surrounding environment, self-diagnostic and interactivity, the system is suitable for all premises.

Each addressable smoke detector in the system is individually adapted to the surrounding environment. The sensitivity of each detector is constant in spite of the individual contamination or background particle level. The long-term changes are, distinguished from the short-term changes of a smouldering fire.

The self-diagnostics function is a result of a unique algorithms that detects every deviation from the accurate normal condition in the electronics and in the detection chamber.

The interactivity function uses information from one, two or more detectors in the system to increase reliability in the detection of a real fire.

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

The control panel is prepared for remote monitoring and operation. Data can be accessed from PC, tablet, or smart phone.



# The EBL fire alarm system has a set of functions that exceed the most stringent requirements in fire detection.

- Up to 7 VdS approved fire detection algorithms are available and can be individually selected, automatically or manually, for each addressable detector
- Alert annunciation. The output for the alarm transmitter can be delayed for immediate on-site investigation of a fire alarm
- Detectors, zones and programmable outputs can be individually disabled on the control unit or remotely from several different applications
- Internally and/or externally controlled time channels makes it possible to disable one or more alarm points via timers
- Outputs can be programmed in a very flexible way, enabling control of fire doors, extinguishing systems, elevators, fans, etc
- Display of the actual system status in a PC, tablet or Smart Phone via a Gateway
- In the event of a fire alarm, service signal, etc. an e-mail can be sent to the appropriate personnel The Gateway also provides an easy integration with an external building management systems or security management systems
- > Up to 30 display units can be connected to each EBL512 G3 CIE



# CONTROL AND INDICATING EQUIPMENT CIE

#### **EBLOne - Innovative elegance**

The new innovative EBLOne control unit sets a new standard in one loop fire detection systems. It features a modern and discreete design, combined with the most intuitive user interface to make installation and maintenance easier than ever before.

Its compact size and contemporary design make it suitable for a variety of environments, from hotels to small industries or kindergartens. Supports auto-addressing to simplify commissioning. Possible to do the complete commissioning directly on the screen, without any need for a PC.

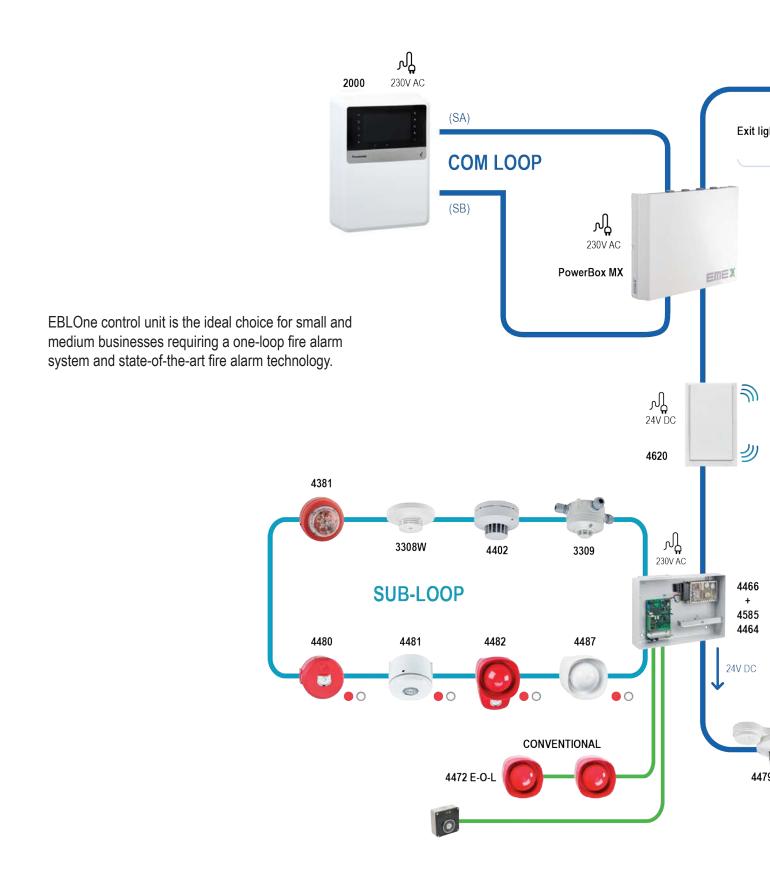
- > 1 COM loop
- > Up to 4 SUB-loops
- > 253 addresses
- > 7" colour touch screen as the single UI
- > USB interface (Type C)
- > 2 outputs for routing equipment
- > 2 programmable inputs

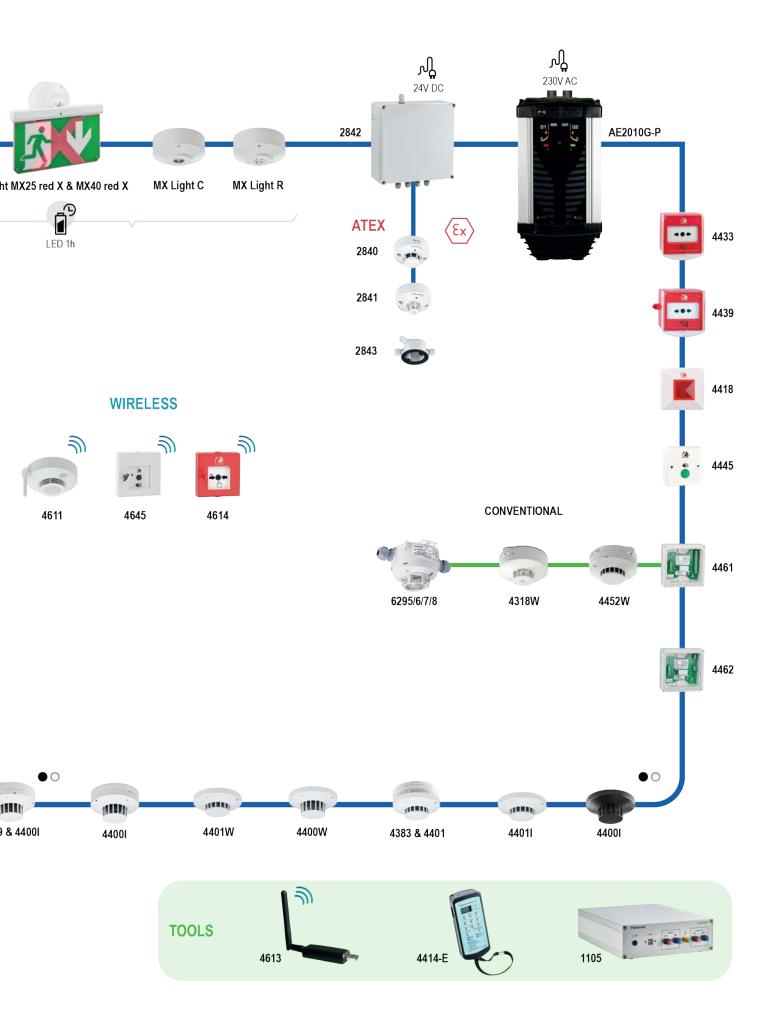


Art. No.	Description
2000	EBLOne CIE
2000K	EBLOne CIE Control panel with key
5088	Gateway



## **EBLONE FOR SMALL INSTALLATIONS**





#### EBL512 G3 - Powerful and flexible

The third generation of the intelligent analog addressable system.

Up to 1012 addresses – of which up to 512 can be used for alarm points (EN-54), remaining addresses can be used for alarm devices, I/O units, exit- and emergency lights, etc.

Redundant network for up to 30 control units with RS422 or optical fiber, mix as you wish.

Supports auto-addressing to simplify commissioning.

Decentralised system with perfectly balanced power supply and batteries minimizes cabling and optimize loop usage.

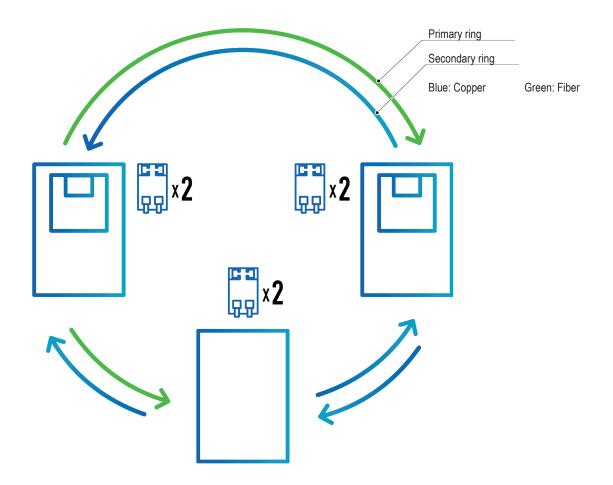
- > 4 COM loops
- > Up to 16 COM loop repeaters per control unit
- > 4 programmable voltage outputs
- > 2 relay outputs
- > 2 relay outputs for alarm transmission
- > 4 supervised inputs
- > 6 power supply outputs



Art. No.	Description
5000XX*	EBL512 G3 CIE
5001	EBL512 G3 CIE Control panel without front or display. To be used in networks with at least one type 5000.
4580	8 zones expansion board
4581	8 relays expansion board
4583	Supervised in- and outputs expansion board
5089	Connection cable for up to six expansion boards
5088	Gateway
5040	Network board
5020	Mounting plate for 19" mounting rack
5013	Cabinet for drawings
5068	Frame for built-in installation

<sup>\*</sup> XX=country version

#### EBL RING NETWORK FOR EBL512 G3



EBL512 G3 can be used as a stand-alone CIE or connected in a redundant network of up to 30 control units in a wide distribution throughout the premises The network is of multi master type, which means that all information is available to all CIE and the whole system can be controlled from any of the control units in the network

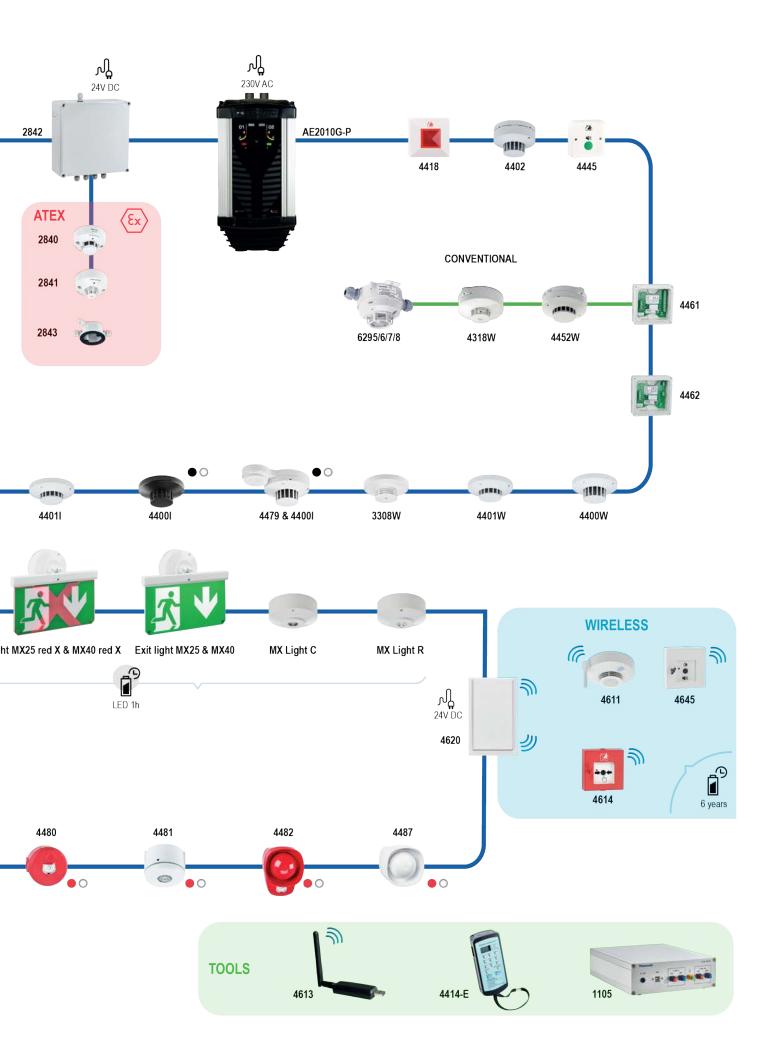
The network consists of two rings communicating in opposite order.

The cable types in the EBL ring network can be either copper or fiber and can be mixed in a fully flexible way in the different segments. Maximum cable length between two control units is 1.000 meters with copper wire and 1.500 meters with optical fiber.

All network programming is done in EBLWin, the same easy and intuitive commissioning tool used for all parts of the EBL system.

## **EBL512 G3 FOR GROWING NEEDS**

رار 230V AC 4433 3309 Panasonic fire alarm systems are designed to 4466 accommodate both standalone units and large system **SUB-LOOP** 4585 with multiple control and indicating units. 4464 Grow the installation from a single control unit to an installation with up to 30,600 loop units, by simply adding 24V DC perfectly matched EBL512 G3 as you need them, up to all h 30 pcs in a network. 4439 4400I CONVENTIONAL 4472 E-O-L ᠕ᡶᢆ 5001S 5000S 230V AC L (SA) **COM LOOP** C (SB) Expansion boards 4580 4383 & 4401 4581 4583 L (SA) **COM LOOP** Exit lig C (SB) ᠕ᡶᢆ 230V AC PowerBox MX EMEX 5054 4381 5054 & 5055



# Tools for easy interaction



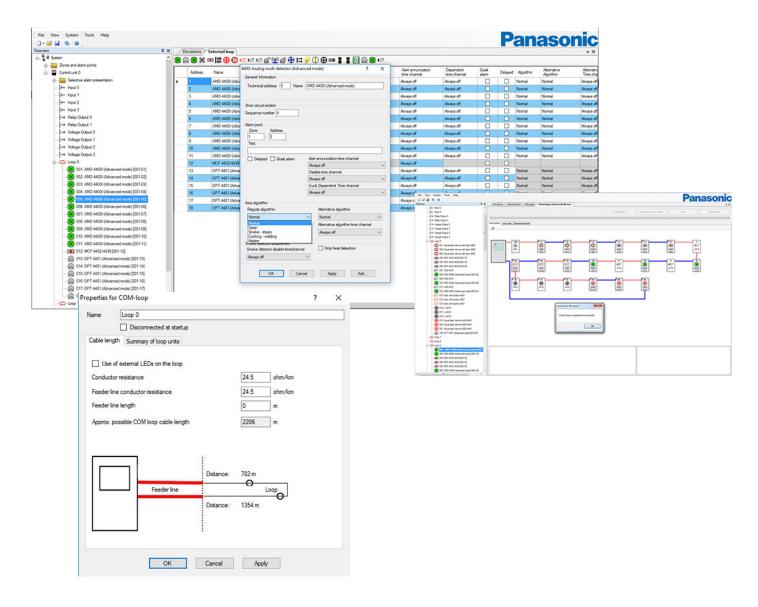
# COMPLETE COMMISSIONING, MADE EASY AND FLEXIBLE

Modern fire alarm systems are very complex and versatile. To get the optimal performance in the most effective way Panasonic provides EBLWin - a powerful and very easy to use Windows based PC tool for planning, commissioning, and maintenance of the system.

One common tool for the handling of the fire detection system, the exit and emergency lights, remote access and network configurations.

Regardless if you prefer to do all the planning and programming at the office and just download to the system on site, or if you prefer to go onsite and create all the Site Specific Data (SSD) with the help of auto addressing, EBLWin supports both ways of working.

EBLWin's auto addressing function is one of the most powerful and yet easiest to handle. It can be applied on new installations, extensions of existing systems or used when replacing detectors. Simply connect to the fire alarm system and let the SW guide you thru the complete process.



### **GATEWAY APPLICATIONS**

#### **GATEWAY 5088**

Remote monitoring and control of an EBL system in any browser on PC, Pad or SmartPhone.

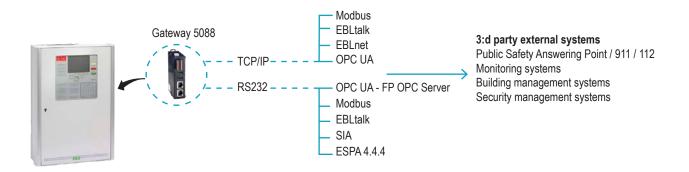
- > Secure log in with different user levels
- High security with up to 2.048 bit encryption and support for OpenVPN
- Automatically generated e-mail at predetermined events; fire alarm, service signal, fault etc to reduce maintenance costs
- Works as gateway to security- and building Management systems
- Mounted on the dedicated DIN rail inside CIE



Art. No.	Description
5088	Gateway
5097	EBLNet license

#### **5088 AS GATEWAY**

Use it as a gateway to a separate building management or security management system.



### **SOFTWARE APPLICATIONS**



#### **EBLWEB**

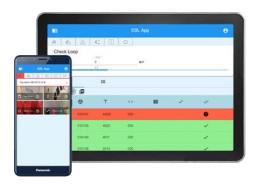
EBLWeb is used for remote presentation and operation of an EBL- system.

- > Same secure log in as on the control unit
- > Supports 2.048 bit encryption and Open VPN
- Presentation of Fire alarm, pre-warning, fault, disablement and technical warnings
- > Disable alarm points and zones
- > Activate outputs
- > E-mail notifications at status changes

#### **EBL APP**

Tool for service technicians that enables one-man testing.

- Set a zone in test mode, test the detectors and get a signed report
- > Test alarm devices
- > Run check loop on the Smartphone
- > Verify the function of all individual outputs in the system
- > Activate detector LED to simplify commissioning



#### **EBL WEB MONITOR**

Ideal solution for monitoring of distributed fire alarm systems.

- Monitors several EBL systems in one browser window
- > Presentation of fire alarm, faults, or other events
- > Easy configuration with included Tool
- Map and list view available
- > Adapted for usage on PC, tablet and Smartphone





#### **EBL GRAPHICS**

Graphical presentation of the fire alarm system.

- > Reset fire alarms and acknowledge faults
- > Disable single alarm points or zones graphically
- > Very fast setup with drag and drop function
- > Easy configuration with included tool
- > View live camera feeds
- > Hierarchical drawing handling



### **DISPLAY UNIT**

Ever since the initial introduction of the display unit 5054, it has been the clear strategy to add more and more innovative applications over time.



#### **Display unit**

- > Selectable function as:
  - Presentation unit
  - Fire brigade panel
  - Alert annunciation unit
  - General control panel
- > Color touch screen 10.1"
- > Up to 30 units can be connected to one EBL512 G3 control unit
- > Up to 1200 meters to the unit farthest away
- Highest security, fully redundant 24V and RS485 connection



#### Display unit metal cabinet

- > Metal cabinet for build-in of Display unit 5054
- > Key required for safety
- To be used in Fire brigade panel applications or in public locations

Art. No.	Description
5054	Display Unit
5055	Metal cabinet for Display Unit

#### **EXTERNAL PRESENTATION UNIT**

This application is perfect when you want to distribute immediate and accurate information about the status of the building's fire alarm system.

The system is extremely flexible and it is possible to tailor the information so each recipient only gets the information relevant to them.



#### **FIRE BRIGADE PANEL**

This panel application also allows authorized persons to silence the alarm devices and to reset the fire alarms in the system. These two buttons are pin code protected and if additional security is required, it is always possible to mount the display unit in the key protected metal cabinet 5055.



#### **ALERT ANNUNCIATION UNIT**

This function provides an opportunity to further reduce the risk for unwanted alarms transmitted to the fire brigade. Instead of automatically transmitting an alarm, you could investigate the situation and cancel any unnecessary fire brigade calls.



#### **GENERAL CONTROL PANEL**

This application includes fan control, evacuation control, and input switches.

Up to eight of them in each display unit, configure and mix them as you wish.



With the latest addition of the General control panel we provide three new functions to simplify the system usage:

#### **FAN CONTROL**

Each fan is connected to an I/O unit and is thereby both controlled and monitored for faults as well as phase faults. Automatic activation of the fans is done by any addressable smoke detector.

#### **EVACUATION CONTROL**

The evacuation function is manually handled by the fire brigade or a building officer, to make a controlled evacuation of a building or parts of it.

#### **INPUT CONTROL**

This is a switch function where it is possible to remotely change state of any connected unit. It may be a question of testing the emergency lights, or lock a door, or activate the light in the car park.





# Minimise unwanted alarms

# Unwanted alarms is the starting point for people to lose trust in the fire detection system

There are several ways to mitigate risk for unwanted alarms, but only the most advanced systems provide all of them.

- Mechanical protection to avoid dust or insects entering the smoke chamber
- > Delays to filter away temporary disturbances
- > Selectable sensitivity in day time and weekends
- > Different detection algorithms for different environments
- Dynamically adjustable alarm levels based on analysis of changes in the environments
- Learning function to always select the best algorithm and within that algorithm dynamically adjust to the situation

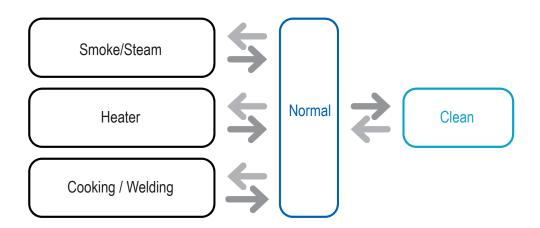
# ADDRESSABLE DETECTORS ARTIFICIAL INTELLIGENCE

#### A unique learning function for optimised detection

By constant analysis of the environment and based on artificial intelligence, Panasonic is providing optimal detection performance in all environments. From the day the detector is installed and as long as it is in use it will monitor and evaluate the environment and automatically select the most suitable algorithm.

Switching between the different VdS approved detection algorithms is based on large amounts of sensor data to eliminate the influence of short disturbances. A minimum of 36 hours and up to 20 days of consistent data is required for a change.

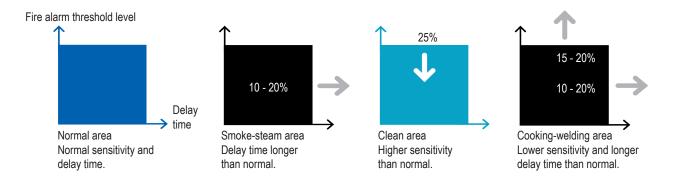
Of course we also provide the possibility to manually select the algorithm, for cases when you are sure what kind of environment the detector will be in.



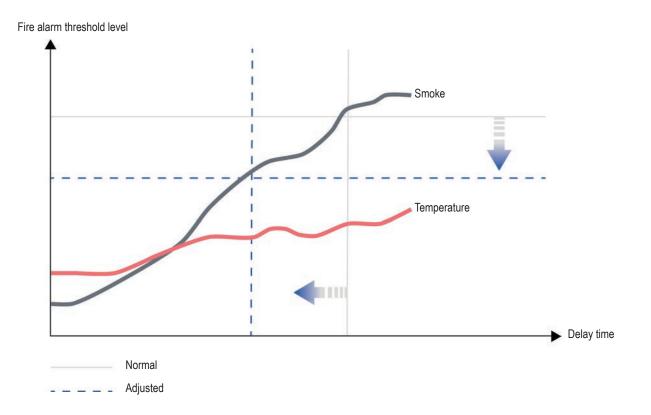
#### Highest safety and minimised risk for false alarm

With variable sensitivity and time delay Panasonic's detectors provides the highest safety combined with a minimised risk for false alarms.

In each of the algorithms there is a variable alarm level and also a variable time delay. The detector is dynamically adjusting the alarm level and time delay, based on how the smoke density level and temperature changes before the standard alarm level is reached.



If we are sure that it is a real fire, we lower the alarm level and remove any delays and give a clear alarm as fast as possible. If the smoke development is not clearly corresponding to a real fire, we allow the detector some additional time to evaluate the situation to avoid an unwanted alarm.





## ADDRESSABLE DETECTORS WITH **ISOLATOR**

For the easiest commissioning with Panasonic's auto address functionality.



#### Analog multi detector with isolator

- > State of the art detector for highest safety
- > Detection by combination of smoke and heat
- > Built-in short circuit isolator
- > Nuisance alarms reduced by up to 46% by using AI
- > A learning function will ensure that the most suitable fire alarm algorithm is always used
- > Installation date and automatic service signal
- > All algorithms tested and approved by VdS







Black



#### Analog smoke detector with isolator

- > State of the art detector for highest safety
- > Built-in short circuit isolator
- > Nuisance alarms reduced by up to 46% by using Al
- > A learning function will ensure that the most suitable fire alarm algorithm is always used
- > Installation date and automatic service signal
- > All algorithms tested and approved by VdS







Art. No.	Description
44001	Multidetector with isolator
4400I-B	Multidetector with isolator-Black
44011	Smoke detector with isolator
4412F	Base
4412F-B	Base-Black
4412J	Base, low profile
4412S	Base, screw terminals
4418	External indicator
4479	Addressable sounder base
4479-B	Addressable sounder base-Black
4489	Ingress protection

## **ANALOG /ADDRESSABLE DETECTORS** WITH ISOLATOR



#### Base for isolator detector

- 3-terminal base for isolator detector
- > Fast connectors for quickest installation possible
- > Fast connectors for loop, shield, and extra cable pair (e.g 24 V)
- > Cable entry from top or side
- Recess for label holder









#### Addressable sounder base

- > 3-terminal sounder base for isolator detector
- > 7 tones, 90 dB
- > Low power mode 84 dB at 1.5 mA in active mode
- > Fast connectors for quickest installation possible
- > Fast connectors for loop, shield, and extra cable pair (e.g 24 V)
- > Cable entry from top or side









#### Base for isolator detector

- Common base for isolator detector
- > Fast connectors for loop, quickest installation possible
- > Low profile build height only 6 mm
- > Cable entry from top or side
- > Recess for label holder











#### Base for isolator detector

- > Common base for isolator detector
- > Screw terminals for easy installation also with the thickest cables
- > Possibility to connect external indicator 4418
- > Low profile build height only 6 mm
- > Cable entry from top or side
- > Recess for label holder







Black



## ADDRESSABLE DETECTORS WITHOUT **ISOLATOR**



#### **Multi detector**

- > State of the art detector for highest safety
- > Detection by combination of smoke and heat
- Nuisance alarms reduced by up to 46% by using AI
- > A learning function will ensure that the most suitable fire alarm algorithm is always used
- > Installation date and automatic service signal
- > All algorithms tested and approved by VdS







Black



#### Photoelectric smoke detector

- > State of the art detector for highest safety
- > Nuisance alarms reduced by up to 46% by using Al
- > A learning function will ensure that the most suitable fire alarm algorithm is always used
- > Installation date and automatic service signal
- > All algorithms tested and approved by VdS









#### Multi detector with CO

- > State of the art detector for highest safety
- > Detection by heat, heat and smoke, or smoke and CO
- > Distinguished between a real fire and nuisance alarm with highest security available
- > Ideal for environments with non-fire smoke, for example theaters, discotheques and oil-mist
- > High-tech mesh net prevents dust and insects to enter the detection chamber
- > Automatic service signal to minimise maintenance cost







Black



#### **Heat detector**

- > State of the art detector for highest safety
- > Algorithms for classes A1, A2S, and BS included
- > Possible to have both regular and alternative algorithms for highest security without nuisance alarms
- > All algorithms tested and approved by VdS







Black

Art. No.	Description
4400	Analog multi detector
4400W	Analog multi detector white
4401	Analog photoelectric smoke detector
4401W	Analog photoelectric smoke detector white
4402	Analog Multi detector with CO
3308	Analog heat detector
3308W	Analog heat detector white



#### **Analog base**

- > Common base for addressable detectors
- > Screw connectors for loop and external LED
- > Label holder recess











#### **Analog base**

- > Common base for addressable detectors
- > Fast connectors
- > Label holder recess
- > 3312F has fast connectors for the COM loop
- > 3312FL has fast connectors for the COM loop and fast connector for external LED (2218)











3379 + 4401

#### Addressable sounder base

- > For installations where an alarm device is required in the same room as a detector
- > Three different sound or priority levels
- > Connected directly on the COM loop
- > Programmable for any kind of trigger condition









Art. No.	Description
3312	Analog base
3312W	Analog base white
3390	Label holder
3391	Labels for label holder (10 x 132)
3312F	Analog base
3312FW	Analog base white
3312FL	Analog base
3312FLW	Analog base white
2218	External LED
3379	Addressable sounder base
3379W	Addressable sounder base white



# CHALLENGING ENVIRONMENTS

## Addressable units for hazardous (ex) areas

With addressable detectors it is possible to identify exactly where the fire is, making the fire brigades work safer and more efficient.





#### Intrinsically safe addressable smoke detector

- Addressable intrinsically safe smoke detector
- > Up to 20 detectors can be connected to each IS barrier
- > Six advanced alarm algorithms selectable
- > EX Class. II 1G EX ia IIC T5 Ga







#### Intrinsically safe analog heat detector

- > Addressable intrinsically safe heat detector
- > IP66/67 with backbox
- > Up to 20 detectors can be connected to each IS barrier unit
- > Three standard heat detection algorithms selectable.
- > EX Class. II 1 G Ex ia IIC T5 Ga







#### Intrinsically safe barrier unit

- > Barrier unit for addressable intrinsically safe detectors
- > Connects directly on the loop and is mounted outside Ex area
- > Up to 20 smoke or heat detectors can be connected to each IS barrier unit
- > IP66/67 for outdoor use or in humid areas
- > EX Class, II (1) G [Ex ia Ga] IIC







Black







#### **Enclosed addressable heat detector**

- > State of the art detector for highest safety
- > Algorithms for classes A1, A2S, and BS selectable
- > Waterproof IP67
- > Possible to have both regular and alternative algorithms for highest security without nuisance alarms
- > Connectors for external indicator
- > All algorithms tested and approved by VdS











#### **Enclosed conventional heat detectors**

- > IP67 for outdoor use or in humid areas
- > High temperature range for difficult environments
- > Fixed alarm temperatures
- > Operating temperatures from -40 up to +110°C







Grey

White

Art. No.	Description
2840	Intrinsically safe addressable smoke detector
2841	Intrinsically safe addressable heat detector
2842	Intrinsically safe Barrier unit
2843	Intrinsically safe back-box for 2840 and 2841.
3309	Addressable enclosed heat detector
6295	Enclosed heat detector, class A2 S
6296	Enclosed heat detector, class B S
6297	Enclosed heat detector, class C S
6298	Enclosed heat detector, class E S



# Fast, cost effective and reliable

Ideal in buildings where it is difficult to hide cables and where extensions are required.

#### **Fast**

- > Easy commissioning
- > Short installation time

#### **Cost effective**

- No cabling
- > 6 years battery life gives low maintenance cost

#### Reliable

- > Sniffer tool for verification of the installation quality
- Approved according to EN54-7, EN54-17, EN54-18, and EN54-25
- > 4 channels, all with automatic back-up frequencies

## **WIRELESS SYSTEM**



#### Wireless photoelectric smoke detector

- > Ideal in buildings where it is difficult to hide cables and where extensions are required
- > Built-in 85 dB freely programmable sounder
- > Up to 170 m transmission range (open air)
- > 6 years battery life under normal usage
- Very small form factor









#### Wireless manual call point

- > Ideal in buildings where it is difficult to hide cables and for extensions
- > Up to 170 m transmission
- > 6 years battery life under normal usage

#### Addressable base station for wireless units

Ideal in buildings where it is difficult to hide cables and where extensions are required.

- > Up to 340 m transmission range (open air)
- > Highly capacity: Up to 16 wireless units on each base stations and 256 per CIE
- > Built-in short circuit isolator









Art. No.	Description
4611	Wireless photoelectric smoke detector
4613	Wireless sniffer
4614	Wireless manual call point
4620	Addressable base station for wireless units
4645	Wireless Local Alarm Acknowledge unit
4612	Battery for wireless units



#### Wireless local alarm acknowledge unit

- > Eliminates unnecessary alarms in the system and to the fire brigade
- > Suitable for apartments or similar locations
- Installed together with a smoke detector and a sounder base or a wireless smoke detector with built-in sounder
- If the detector goes into alarm the sounder is activated and the LED is lit. The user pushes the black button within 30 seconds (configurable) and then gets 3 minutes (configurable) to ventilate the smoke from the room.
- > Minimum 170 m transmission range (open air)
- > 6 years battery life under normal usage







ite

# **Solutions for historical** buildings

Ideal in buildings where it is difficult to hide cables, or where cabling may not be allowed. Hotels, restaurants, sanctuaries, and museums.





#### Wireless sniffer

Highly recommended tool for planning, installation, and commissioning of the wireless system.

- > Checks the background noise
- Checks the signal quality between a base station and its wireless units
- Verifies that the standard EN54-25 is fulfilled in every installation



Excellent when existing installations must be completed or extended.

Or for new, small installations. Schools, shops, markets, banks, cafes, hotels etc.



## **ASPECT**

#### Everything you need in one housing to save you time and money

Addressable detector with built-in power supply and integrated filters eliminates extra installation steps and the need for I/O units, power supply and other external equipment.

A detector developed for the most requiring environments makes it suitable for all kind of installations. Fast and simple set-up with BLE and a Smartphone app, combined with an automatic calibration makes it an ideal solution for any installer. Add glue free connections of the pipe gates and an extensive portfolio of easy to use accessories and you have the fastest installation available.





#### **Aspect addressable - Grizzle detector**

- > Extremely reliable in humid and dusty environments
- 2 sensors, 2 detection zones
- > Detection class B 2 x 100 meter pipes
- Detection class C 4 x 100 meter pipes
- > Operating temperature -30 to +50°C
- For logistic centers, heavy industry, freeze rooms, and many more

#### **Aspect addressable - Lazeer detector**

- Developed for early warning in clean rooms with high demands to quick detection of smoke and fire gases
- > 2 sensors, 1 detection zone
- > Detection class A 2 x 100 meter
- Lazeer indicates presence of smoke in three preset levels, and can be configured to raise the alarm at any one of these levels
- > For use in Clean rooms, data centers, and laboratories



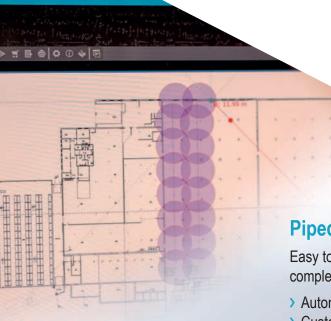
#### **THUB - Mounting console**

- Up to 4 pipes can be connected
- > Pre-install the pipeline
- > Easily snap-on of the detector
- > Built-in condensation handling
- > Avoid dirt into detector during building phase



#### **ELOCLEAN**

- > Automatic and safe cleaning of aspiration pipes
- > For use in installations in extremely dusty environments, or in combination with high humidity
- > Configurable cleaning intervals from 1 to 7 times per week
- > Activation via input or manually also possible



#### **Pipedraw**

Easy to use PC program for design of even the most complex aspiration systems.

- > Automatic calculation of hole positions and diameters
- > Customised installation information for different users
- Verification reports for sensitivity and transportation
- > Automatic generation of complete material list for each project
- > For PDF, DWG, and DFX files



#### Vulcan cyclone filter

- Cyclone filter for separation of large particles and condensation, before the air reaches the detector
- > For environments with large particles
- Used in wood- and textile industry, paper recycling stations and chicken farms



#### **Exhaust kit**

- For leading exhaust air back into the sampling room to balance the air pressure
- > Reduces noise from the detector down to 45dB
- Combine with 50 cm pipe to lead air away from the detector in very dirty environments

#### **Aspect Tool**

The only tool you need to set the preferred operating parameters for your Aspect. Connect through Wi-Fi or BLE to easily edit settings, timers and modes:

- Save time on commissioning and service with the Aspect tool app
- Simple status read-out and configuration on your mobile device
- > Single touch adaption to local air flow.
- > Generate and e-mail full status reports









#### **Pipes**

- Special surface treatment on the inside to reduce buildup of dust
- > Pre-applied sealant for fast and clean installation
- Thicker material for a very solid installation, with fewer clips



#### **Bends**

- > Radius optimised to eliminate loss of airflow
- > Pre-applied sealant for fast and clean installation
- > Designed for mounting clips



#### **Sockets**

- > Extra-long to prevent pipe separations
- > Pre-applied sealant for fast and clean installation
- Designed for mounting clips



#### **Sniffer**

- > For detection above and below a ceiling
- > For discrete detection where design is important
- > For monitoring of electrical cabinets
- > Up to 12 sniffers can be used on each pipe

Art. No.	Description
AE2010G-P	Aspect addressable for Panasonic - Grizzle
AE2010GH-P	Aspect addressable for Panasonic - Grizzle High Sensitive
AE2010GN-P	Aspect addressable for Panasonic - Grizzle Low Sensitive
AE2010L-P	Aspect addressable for Panasonic - Lazeer
AE2010G-S	Aspect Grizzle Stand-alone
AE2010GH-S	Aspect Grizzle High Sensitive Stand-alone
AE2010GN-S	Aspect Grizzle Low Sensitive Stand-alone
ELOCLEAN	Pipe cleaner
VF 2850 com	Vulcan cyclone filter
AU 002	Exhaust kit
THUB	Mounting console
PL 253 P	Plastic pipes 13 pieces x 4 meters RED
AL 250	Aluminum pipe 4 meters
SK 253	Socket with tightening function RED, with a pre-glued inside for simple and fast mounting of the pipes
BE 253	Bend 90 degrees RED, with a pre-glued inside for simple and fast mounting
SN 253 P	Sniffer 3 meters sampling point
SN 258 M	Sniffer 0.75 meter sampling point



#### I/O units

The portfolio consists of both standardised units as well as an addressable power supply and the unique loop expander.

## I/O UNITS



#### **Addressable Power supply**

- > Connected to the loop and 230V
- Monitored for mains, charging, and communication faults
- Space for two expansion boards with voltage outputs and/or loop expander
- > Built in short circuit isolator
- > Room for 2 pcs of 7.2 Ah batteries inside housing
- > Up to 42 Ah in external battery cabinet (5014)



#### **COM-Loop repeater**

- > To be mounted in external power supply 4466
- > One new 350mA loop per expansion board
- > Up to 16 extra COM loop repeaters per control unit
- > Supports auto-addressing



## End of line device

- > End of line for use with alarm devices
- > Advanced supervision
- > Fulfills all EN54-13 requirements

#### 2 Voltage outputs board

- > Expansion board for external power supply
- > 2 monitored voltage outputs (2 A each)
- > 1 special voltage output for fire door closing
- > 1 generic input
- > Supports auto-addressing



#### I/O Unit with isolator

- > 1 zone line input
- > 1 monitored input
- > 1 optocoupler input
- > 2 relay outputs
- > Built-in isolator
- > IP65 housing



#### **Dual input unit with isolator**

- > 2 monitored input
- > Built-in isolator
- > IP65 housing



# Addressable local alarm acknowledge unit

- > Eliminates unnecessary alarms in the system and to the fire brigade
- > Suitable for apartments or similar locations
- Installed together with a smoke detector and a sounder base or a wireless detector with built-in sounder
- If the detector goes into alarm the sounder is activated and the LED is lit. The user pushes the green button within 30 seconds (configurable) and then gets 3 minutes (configurable) to ventilate the smoke from the room

Art. No.	Description
4466	External power supply
4464	2 voltage outputs board
4585	COM-loop repeater
4445	Addressable local alarm acknowledge unit
4461	Addressable multi purpose I/O unit with isolator
4462	Addressable 2 input unit with isolator
5014	Cabinets for 60 Ah batteries
4472	End of line device



# Evacuation smarter and safer



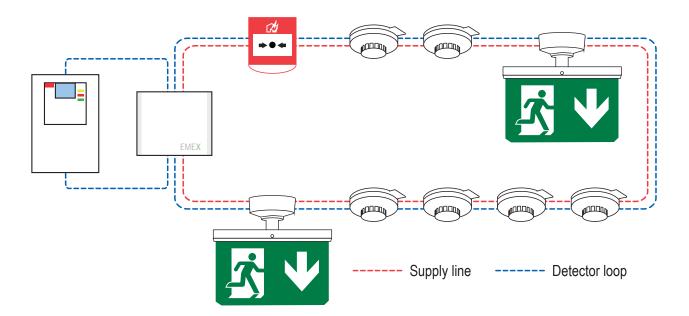
Panasonic's exit and emergency lights are fully integrated with the fire alarm system and are commissioned from EBLWin, like all other components.

All units are connected to the same loop and thereby possible to fully control and monitor. To make sure the addition of the lights doesn't compromise the loop length, all luminaries are powered by a separate 24V supply.

Other advantages are the automatic testing, the elimination of an extra control unit, no fire proof cable needed, the low power consumption which all contribute to favourable economy of the system.

## **EXIT & EMERGENCY LIGHTS**

Panasonic emergency and exit lights are fully integrated with the fire alarm system, thereby all units are connected to the same loop and possible to fully control and monitor. To make sure the addition of the lights does not compromise the loop length, all luminaires are powered by an external 24V supply.



#### **Power Box**

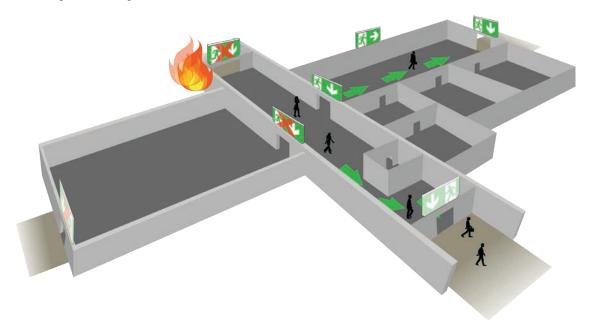
The emergency and exit lights are powered from a separate box. This set up with a separate supply line for the lights makes it possible to maintain the length of the loop and still add many luminaires.

- > 4 supply lines and up to 200 luminaires can be connected to each control unit
- > Up to 1.000 meter cable per supply line
- If longer cables are needed more power boxes can be added to the supply line



## Dynamic evacuation with adaptive lights

A major advantage with the integration is that we can use the information from the fire detection system to control the exit lights and indicate that an escape route is unsafe to use and thereby minimize the risk of people being exposed to dangerous fire gases during an evacuation.







#### **Adaptive Exit Lights**

Panasonic adaptive exit lights provide the safest evacuation possible. Being fully integrated with the fire detection system, the signs can dynamically switch to indicate that an escape route is unsafe to use, minimizing the risk to enter smoke filled areas.

- > 25 or 40 meters viewing distance
- > Self-contained with one hour back up time
- > Fast installation in 3312FLW base
- > Wall mounted or ceiling mounted

#### **Exit Lights**

Panasonic exit signs clearly shows you the nearest way out. Addressable, like the other products, means that they are constantly monitored and maintenance is made faster and easier.

- > 25 or 40 meters viewing distance
- > 20 different picograms available
- Controlled and monitored from the control panel or remotely via EBLWeb or EBL Graphics
- > Self-contained with one hour back up time
- > Fast installation in 3312FLW base
- Wall mounted or ceiling mounted



#### **Emergency Lights**

The emergency lights are fully programmable to be activated in the event of a mains power failure or an emergency situation or any other event you select. They make sure all evacuation routes, open spaces and stairs are clearly illuminated.

- Available with round lens for open areas and asymmetric for corridors
- Controlled and monitored from the CIE or remotely via EBLWeb
- State of the art lens and LED technology gives larger coverage area for each emergency light
- > Self-contained with one hour back up time



### For indoor and outdoor environments

With a IP65 rating, MX IP65 Exit / Emergency light and MX Outdoor emercy light can be used in both indoor and outdoor facilities with challenging conditions such as parking halls, industry and all kinds of humid environments.





#### MX IP65 Exit / Emergency light

As exit sign, it ensures that exit points always are clearly visible. When used as an emergency light, it comes on in the event of a mains power failure or in any emergency situation.

- > 2 in 1; exit sign and emergency light
- > Suitable for wall and ceiling mounting
- > 4 included pictograms (up, down, left, right)
- > Double sided exit sign available as accessory
- > 3 h battery back up



#### **MX Outdoor Lights**

The MX Outdoor emergency lights provides illumination in outdoor evacuation areas as well as in evacuation routes in cold areas like freeze rooms, industries or mines.

- > Compact emergency light for outdoor use, or cold areas
- > Luminaire mounted in cold areas down to -30 degrees
- > Electronics unit mounted inside or down to -20 degrees
- > 3 h battery back up



Art. No.	Description
825200	MX25 Exit light
825201	MX25 Exit light, red X
840200	MX40 Exit light
840201	MX40 Exit light, red X
970001	MX25 pictogram, Right
970002	MX25 pictogram, Down
970003	MX25 pictogram, Up
970004	MX25 pictogram, Left/Right
970005	MX25 pictogram, Down/Down
970007	MX25 pictogram, HCP kit
970008	MX40 pictogram, Left
970009	MX40 pictogram, Right
970010	MX40 pictogram, Down
970011	MX40 pictogram, Up
970012	MX40 pictogram, Left/Right
970013	MX40 pictogram, Down/Down
970015	MX40 pictogram, HCP kit
970016	MX25 pictogram, Up/Up
970017	MX40 pictogram, Up/Up
970020	MX25 red x board
970021	MX40 red x board
970030	MX25 pictogram, HCP kit Norway
970031	MX40 pictogram, HCP kit Norway
810000	MX Power box
830001	MX Light Corridor
830002	MX Light Round
830010	MX IP65 Exit / Emergency light
830020	MX Outdoor emergency light
910002	Battery for MX
910007	Battery for IP65/Outdoor
930016	MX IP65 Double sided cover



# **ALARM DEVICES AND INDICATORS**



#### Addressable wall VAD

- > Coverage 2.4 x 5 x 5 meters
- > Flash rate 0.5 Hz or 1 Hz
- > Built-in short circuit isolator







#### Addressable ceiling VAD

- > Coverage 3 x Ø 7.3 meters
- > Flash rate 0.5 Hz or 1 Hz
- > Built-in short circuit isolator







#### Addressable VAD with siren

- > Flash rate 0.5 Hz or 1 Hz
- > Coverage 2.4 x 5 x 5 meters
- > Seven different tones and three priority levels
- > Built-in short circuit isolator







#### Addressable siren

- > Seven different tones and three priority levels
- > Built-in short circuit isolator







Addressable VAD with isolator

- > Low power addressable VAD
- > More than 40 units possible on one loop
- > Build-in isolator for highest security





Red



#### **External indicator**

- Selectable light intensity makes it ideal for both analog and conventional detectors
- > Connected directly to detector base
- > For wall or flush mounting



#### Addressable external indicator

- > Connects to loop
- > Advanced mode programmable
- > Normal mode Mirrors detector LED
- > For wall or flush mounting
- > Supports auto addressing



#### **Light indicator**

- > To be mounted in base 3312 or 3379
- > No cabling required
- > Programmable for any kind of trigger condition

Art. No.	Description
4480RE	Addressable wall VAD with isolator red
4480WH	Addressable wall VAD with isolator white
4481RE	Addressable ceiling VAD with isolator red
4481WH	Addressable ceiling VAD with isolator white
4482RE	Addressable VAD with siren and isolator red
4482WH	Addressable VAD with siren and isolator white
4487RE	Addressable siren with isolator red
4487WH	Addressable siren with isolator white
4381	Addressable VAD with isolator
2218	External indicator
4418	External indicator
4383	Light indicator



### **CONVENTIONAL ALARM DEVICES**



# Universal call point / IP manual call point IP66

- > Choice of glass or plastic elements
- > Changeover contacts
- > Potted waterproof option IP66
- > Flag on re-settable element



#### **SYMPHONI** sounder red

- > Perfect for large installations
- > 100 dB (A)
- Ultra low power consumption;5 mA



#### SYMPHONI LX WALL WP

- > 32 selectable tones
- > Ultra low current consumption
- > Up to 7.5m coverage volume (switchable to 2.5m)
- > 0.5 or 1Hz Flash rate
- > Coverage switch to 2.5m
- > IP66



#### SYMPHONI LX

- > 32 selectable tones
- > Ultra low current consumption
- > Up to 7.5m coverage volume (switchable to 2.5m)
- > 0.5 or 1Hz Flash rate
- > Coverage switch to 2.5m



# RoLP deep sounder (Roshni Low Power)

- > 102dB(A) sound output
- > 32 tones (user selectable)
- > Two stage alarm
- > Automatic synchronisation



# RoLP shallow sounder (Roshni Low Power)

- > 32 selectable tones
- > 102 dB(A)
- > 12 mA active



# RoLP LX wall (Roshni Low Power)

- > Ultra low current consumption
- > RoLP and RoLP Maxi sounder options
- > Up to 7.5m coverage volume (switchable to 2.5m)
- > 0.5 or 1Hz flash rate
- > Red flash



#### Red bell 24V 6"

- > High sound output, up to 95dB(A)
- > Classic design
- > Simple installation



#### **SOLISTA WALL LX**

- > Ultra low current consumption of 10mA
- > Up to 7.5m room coverage
- > 0.5Hz or 1Hz flash rate
- > Coverage switch to 2.5m



#### **SOLEX XENON BLUE**

- > Three selectable light output levels
- > User selectable flash rates



#### **SOLISTA CEILING LX**

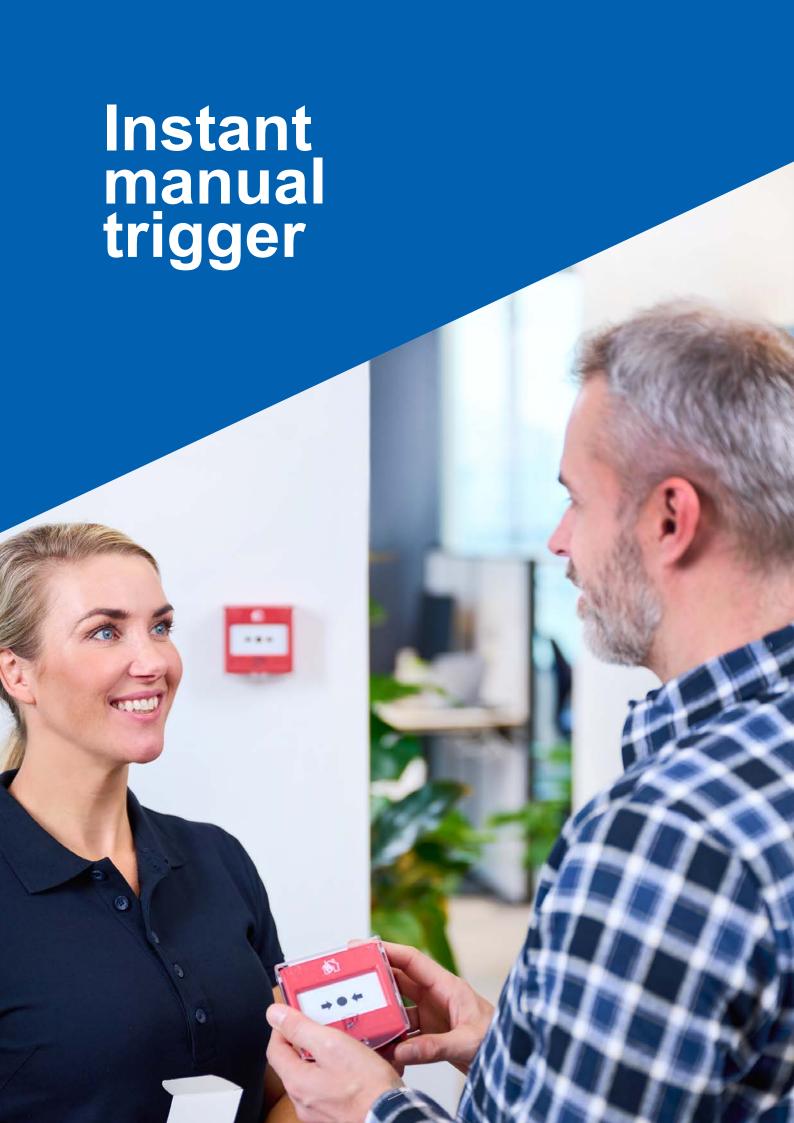
- > Ultra low current consumption of 10mA
- > Up to 7.5m coverage volume
- > 0.5Hz or 1Hz Flash rate
- > Coverage switch to 3m



#### **FLASHNI XE**

- > High output sounder beacon 101 dB(A)
- > IP65

Art. No.	Description
4920016FULL-0018XC	Universal call point
4920047FULL-0420X	IP Manual call point IP66
521601FULL-1601	Red bell
540501FULL-0389XE	RoLP shallow sounder
540505FULL-0403XE	RoLP deep sounder
8500025FULL-0025X	RoLP LX wall
650001FULL-0003X	Symphoni sounder red
8500045FULL-0045X	Symphoni LX
8500060FULL-0060X	Symphoni LX wall WP
531043FULL-0090	Solex xenon blue
812013FULL-0114X	Solista wall LX
812022FULL-0123X	Solista ceiling LX
640016FULL-0011	Flashni XE Sounder with Xenon Beacon



# MANUAL CALL POINTS



#### Addressable manual call point

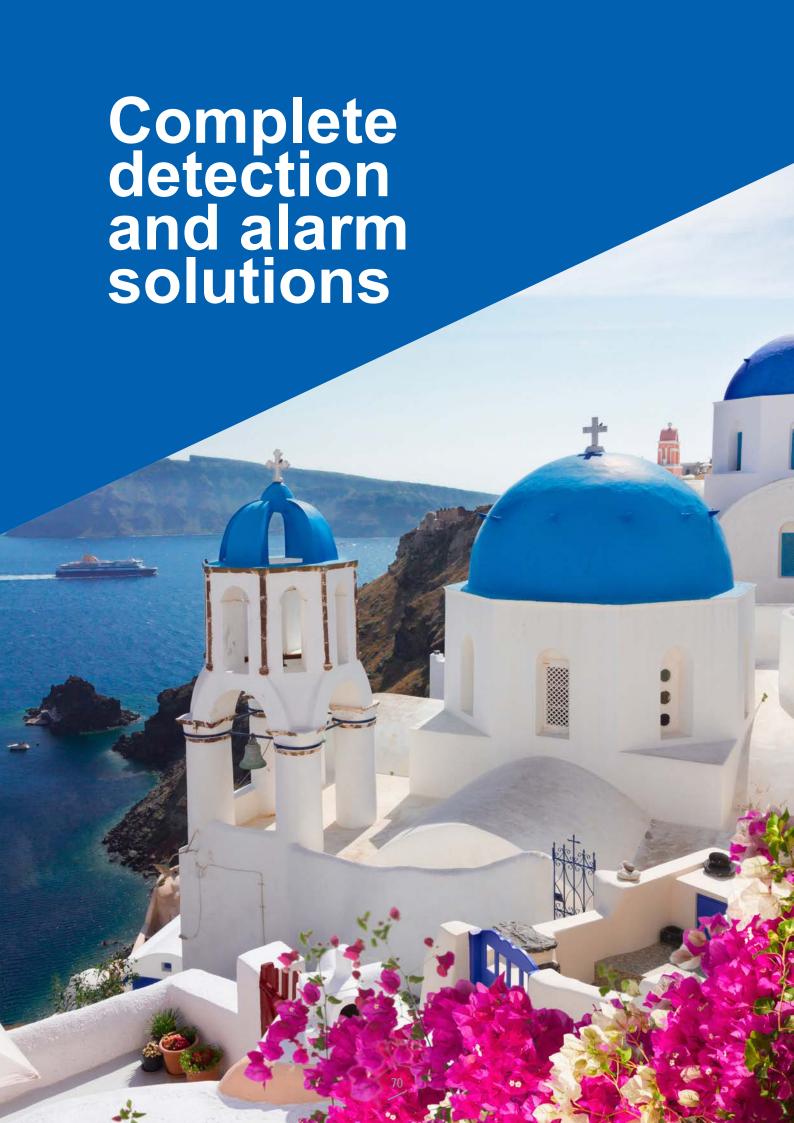
- > Attractive design compliant with EN54-11
- > Test key for routine testing
- > Protection against accidental operation
- > Built-in short circuit isolator



#### **Enclosed addressable manual call point**

- > Attractive design compliant with EN54-11
- > IP rating IP66
- > Test key for routine testing
- > Protection against accidental operation
- > Built-in short circuit isolator

Art. No.	Description
4433	Addressable manual call point with isolator
4439	Enclosed addressable manual call point with isolator
2347	Replacement glasses for MCP 443X/333X/234X (10 pcs.)
2348	Spare polycarbonate flap for MCP 3333/2346/2349 (1 pcs)



# **CONVENTIONAL DETECTORS**



#### Photoelectric smoke detector

- > State of the art detector for highest safety
- > Nuisance alarms reduced by up to 46% by using variable sensitivity and time delay
- > A learning function will ensure that the most suitable fire alarm algorithm is always used
- > High-tech mesh net prevents dust and insects to enter the detection chamber









#### **Combination heat detector**

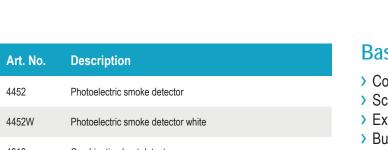
- > State of the art combination heat detector
- > Both fixed temperature and rate-of-rise function Class A1R







Black



Art. No.	Description
4452	Photoelectric smoke detector
4452W	Photoelectric smoke detector white
4318	Combination heat detector
4318W	Combination heat detector
2324	Base
2324W	Base white



#### Base

- > Common base for conventional detectors
- > Screw terminals for easy installation of any cable type
- > External indicator (LED) can be connected to the base
- > Built-in LED that is activated when the detector goes into alarm stage









# BEAM DETECTORS AND FLAME DETECTORS



#### **Fireray One**

- > Reflective beam detector with industry leading optics
- > One minute auto alignment.
- > Detection range between 5 and 120 meters.
- Motorised for automatic building movement compensation
- > Contamination compensation
- Configurable sensitivity



#### Fireray 3000

- > End to End beam detector with industry leading optics
- Ideal for use when the line of sight is narrow or in buildings with reflective surfaces
- > Low level system controller for up to two detectors
- > Configurable for range between 5 and 120 meters
- > Laser alignment for fast installation
- Patented light cancellation technology for minimised false alarm risk



#### Flame detector IR3

- > Excellent immunity to false alarms
- > Multi spectrum detection
- High sensitivity also in contaminated environments
- > Selectable sensitivity levels
- > Variable response speed
- > Built in auto and manual test



#### Flame detector UV/IR2

- > Highest immunity to false alarms
- > Suitable also for outdoor areas
- Proven response to multi type fuels
- Selectable sensitivity levels
- Variable response speed
- > Optical self-test



#### Flame detector IR3 Exd

- > Excellent immunity to false alarms
- Suitable for use in Zone 1, 21, 2 and 22
- > Multi spectrum detection
- High sensitivity also in contaminated environments
- > Selectable sensitivity levels
- > Variable response speed
- > Built in auto and manual test

Art. No.	Description
3411	Reflective beam detector FireRay One
3406	End to end beam detector FireRay 3000 system
3407	Talentum IR3 Flame detector
3408	Talentum UV/IR2 Flame detector
3412	Talentum Exd, IR3 Flame detector

## **ACCESSORIES**



#### **Duct detector chamber UG-4**

One-pipe air sampling system Uniguard Superflow.

- > Patented venturi pipe and duct housing
- > Easy service and maintenance
- > Test hole in cover
- > The venturi pipes are available in 3 lengths; 0.6, 1.5, and 2.8 meter
- > The UG-4 bracket 6382 is required for the mounting of 6377 when a pipe with fan (6381-xx) is used



#### Rope elevator kit

Allows the user to access a detector mounted in a high ceiling height.

- A kit to make a rope elevator for a detector and it's base
- Used with any Panasonic heat or smoke detectors mounted in a base



#### Console for floor installations

For mounting of detectors in floor ducts.

> Fits any Panasonic detector mounted in a detector base



#### Protective cover for detector

Protection of the detector against physical damage.

 Used together with any of Panasonics detectors mounted in a base



#### Deep base

Base for concrete ceilings with possibilities to connect cable pipes.

- > Fits all Panasonic bases
- > Up to 4 cable pipes can be connected
- > Pipe diameter up to 20 mm



#### **Drip pan for detector**

Protects against damp and moisture.

- Used together with any of Panasonics detectors mounted in a base
- The drip pan has two mounting flanges on the outside to make it leakproof from the ceiling
- > Cable glands for cable diameter 6-10 mm are included



#### **Detector heater**

Prevents condensation in cold or humid environments.

- Used together with any of Panasonics detectors mounted in a base
- Increases the ambient temperature from -20 °C to -10°C
- Allowing the detector to work within its specified operational conditions
- > Fast connectors for power supply cables



#### Label holder

Label holder and labels for addressable detectors mounted in a base.

Art. No.	Description
6377	Uniguard-4 duct detector chamber
6380-06	Uniguard-4 pipe 0.6 m
6380-15	Uniguard-4 pipe 1.5 m
6380-28	Uniguard-4 pipe 2.8 m
6381-06	Uniguard-4 pipe with fan 0.6 m
6381-15	Uniguard-4 pipe with fan 1.5 m
6381-28	Uniguard-4 pipe with fan 2.8 m
6382	Uniguard-4 bracket
6384	Uniguard-4 filter (10 pcs)
6385	Uniguard-4 pipe gland
6366	Console for floor installation
6362	Rope Elevator kit
6218	Drip pan for detector
6228	Detector heater
6360	Protective cover for detector
6212	Deep base
3390	Label holder (100 pc)
3391	Labels for label holder (10 x 132)

## **TOOLS**



#### **Loop tester**

Avoid trouble shooting in the commissioning phase - verify the cabling and loop devices before the CIE is installed.

- > PDF reports for documentation of the loop
- > Can be used for auto addressing of loop devices
- > Read out the loops, combine and save as one SSD
- > Ideal when sub-contractors are used
- Possible to complete programming during the installation
- Comes complete with a power supply in a robust carry casing



#### **Address setting tool**

Fast and easy to use tool for address setting of all types of COM loop units.

- > Automatic mode setting of advanced detectors
- > Long battery lifetime up to 50.000 readings
- > Cable included to support all types of loop devices
- > Configurable auto turn off time

Art. No.	Description
1105	Loop tester
4414-E	Address setting tool

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















Panasonic Fire & Security Europe AB Jungmansgatan 12 SE-211 11 Malmö, SE +46 (0) 40 697 7000 info.pfseu@eu.panasonic.com www.panasonic-fire-security.com

in

Doc: cat\_pfseu\_mew01788\_rev\_8

Authorized distributor