# PROFESSIONAL FIRE

FIRE DETECTION AND VOICE EVACUATION SYSTEMS

Comelit®
Passion.Technology.Design.

www.comelitgroup.com

## Deep roots, global vision.

Founded in 1956, Comelit Group SpA is an industrial company operating on a worldwide scale and specialising in the design and manufacture of video entry, video surveillance, anti-intrusion, home automation, access control and fire alarm systems. The company has a strong international vocation thanks to its close ties with the area in which it was created and in which its headquarters are still located today.

## An international group.

Comelit exports to over 70 countries worldwide and, **in addition to its Italian headquarters, has 15 branches** located in strategic areas in which the company operates: from Europe to the Far East, the United States and the Middle East. This articulated sales structure integrates shared know-how with the awareness of specific requirements in each market.

## Constant innovation, friendly technology.

Comelit makes constantly looking to the future its mission. Innovation through continuous investment in manpower and technology finds an outlet in the design of new solutions dedicated to improving the quality of everyday life by maximising simplicity and functionality.

## Design: style, passion, art.

Besides placing technology at the service of mankind, Comelit is a byword for design. Its unique and original style combines the most hi-tech materials with simple lines, clean shapes and cutting-edge colours. Every Comelit product therefore conveys a new concept for living in a space, in harmony with modern architectural trends.

DESIGN MILANO

reddot design award

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## FIRE DETECTION SOLUTIONS


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# FIRE DETECTION

# THE APPLICATIONS

AIRPORTS

HOSPITALS

SCHOOLS

OFFICES

MUSEUMS

HOTELS

SHOPPING CENTRES

CAR PARKS

INDUSTRY

# THE SYSTEMS

CONVENTIONAL SYSTEM

Conventional systems are particularly suited to fire detection in smaller facilities and buildings with simple layouts. These systems require the installation of detectors and manual alarm buttons in separate zones, with a maximum of 32 devices per zone.

ADDRESSABLE SYSTEM

Addressable systems can identify the precise location of a fire and are suitable for facilities of all types. Each loop of an addressable panel can include up to 250 devices.

ASPIRATING SMOKE DETECTION SYSTEM

The aspirating smoke detection system should be used in conjunction with addressable or conventional systems and is the ideal replacement for point detectors in installations where access - and therefore maintenance - is difficult.

WIRELESS SYSTEMS

Wireless systems are used in installations with a high artistic value where structural work cannot be carried out, in mobile sites or to significantly reduce installation timescales.

VOICE EVACUATION SYSTEMS

Voice evacuation systems are the perfect solution to lead evacuations in a safe and orderly fashion, keeping the people inside the building safe and avoiding general panic from breaking out.

ATEX SYSTEMS

ATEX fire alarm systems should be installed in places where there is a high risk of explosion, due to the atmospheric conditions and the elements in that environment.

GAS DETECTION SYSTEMS

Gas detection systems are capable of selectively and reliably indicating the presence of toxic gases and flammable vapours. They are suitable for use in car parks, industrial areas and buildings.

# SYSTEM COMPARISON

| | CONVENTIONAL SYSTEM | ADDRESSABLE SYSTEM |
|---|---|---|
| Product codes | 43CPC002EN - 43CPC004EN<br>43CPC008EN - 43CPC016EN | 41CPE012 - 41CPE024EN |
| Certification | **EN54-2, EN54-4** | **EN54-2, EN54-4, LPCB** |
| Possibility for expansion with Comelit wireless system | Yes | Yes |
| Possibility for interfacing with Comelit aspirating system | Yes | Yes |
| Possibility for interfacing with Comelit EVAC system | Yes | Yes |
| Programming via PC software | No | Yes |
| Identification of the specific device triggering the fire alarm or fault | No | Yes |
| Connection of multiple panels in a network | No | 64 |
| Supervision via software on a PC | No | Yes |
| Maximum number of devices per line/loop | 32 | 250 |
| Separate lines required for alarm buttons and detectors | Yes | No |
| Timer programming for day/night mode | No | Yes |
| Access level protection | Via mechanical key | Via numeric code |
| Events log | Optional for 43CPC016EN | Yes |
| RECOMMENDED APPLICATIONS | | |
| Offices | Yes | Yes |
| Car parks | Yes | Yes |
| Museums | Yes | Yes |
| Airports | No | Yes |
| Shopping centres | No | Yes |
| Hotels | No | Yes |
| Schools | No | Yes |

# OUR CALCULATION TOOLS

Comelit provides tools that can correctly calculate the dimensions of addressable systems and precisely identify any possible problems before installation of the system. For example, you can calculate the cross-section and maximum length of the cable to use in accordance with the devices installed in the system, the maximum current consumption of the devices and thereby determine whether the panel will be able to control them. A second tool calculates the minimum capacity of the battery to be installed to ensure a certain level of autonomous operation in the event of a mains power outage. All this is possible simply by entering the number of devices that are to be installed. There are 3 calculation tools available:

- Tool for calculating cable cross-section and length and the current absorption for all Comelit addressable panels.
- Battery calculator for the Atena addressable panel
- Battery calculator for the Atena Easy addressable panel

Below is a simple example of how to use these calculation tools.

Example system with the devices listed in the following table.

| Product codes | DESCRIPTION | PRODUCT |
|---|---|---|
| 41RCS000 | Addressable heat detector | 5 |
| 41RFU000 | Addressable optical smoke detector | 30 |
| 41RML000 | Addressable multi-criteria detector | 10 |
| 41PAM000 | Addressable manual button | 5 |
| 41SAI000 | Addressable siren | 5 |
| 41SCI000 | Addressable siren and strobe | 3 |
| 41SAB000/IS | Base with addressable siren | 2 |
| 41IOM022 | Addressable 2IN/2OUT module | 3 |

Using the tool for calculation of cable characteristics and current consumption for Atena and Atena Easy, entering the data gives the following results:

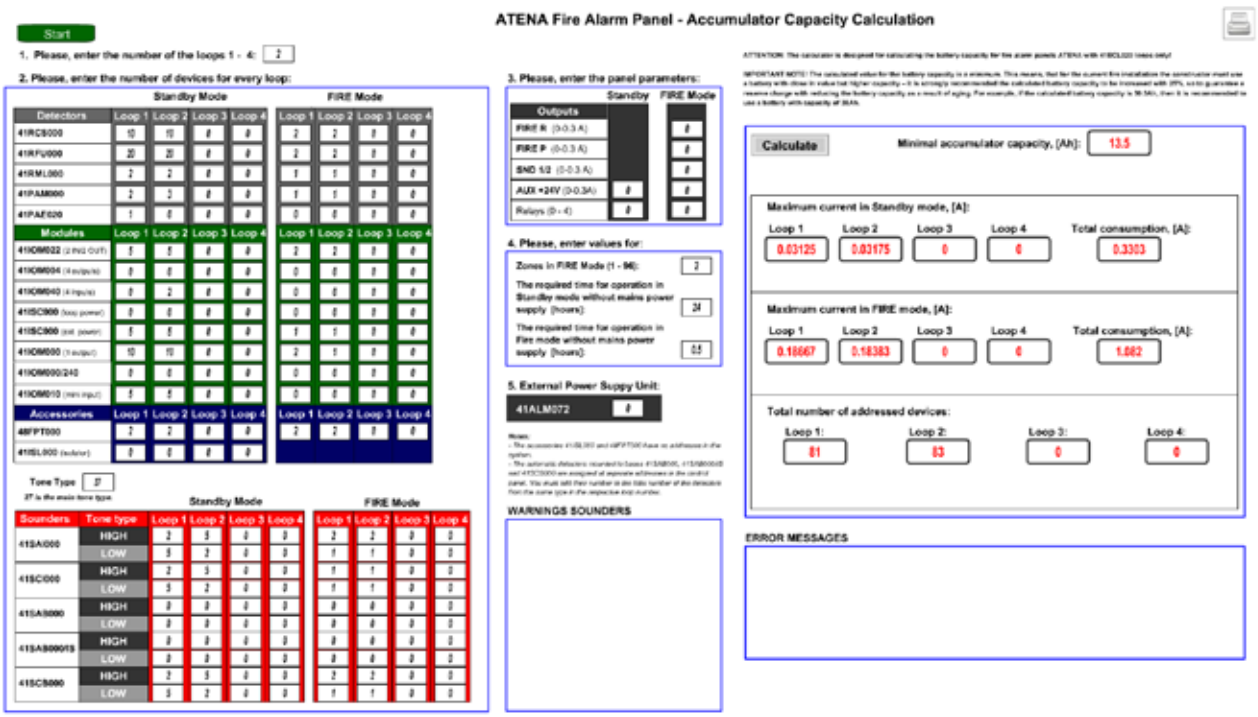
- Current consumption = 213.4 mA
- Maximum cable length using cable with cross-section 1.5 $mm^2$ = 4174.6 m
- Minimum cable cross-section, given maximum length of loop is, for example, 2500 m = 1 $mm^2$

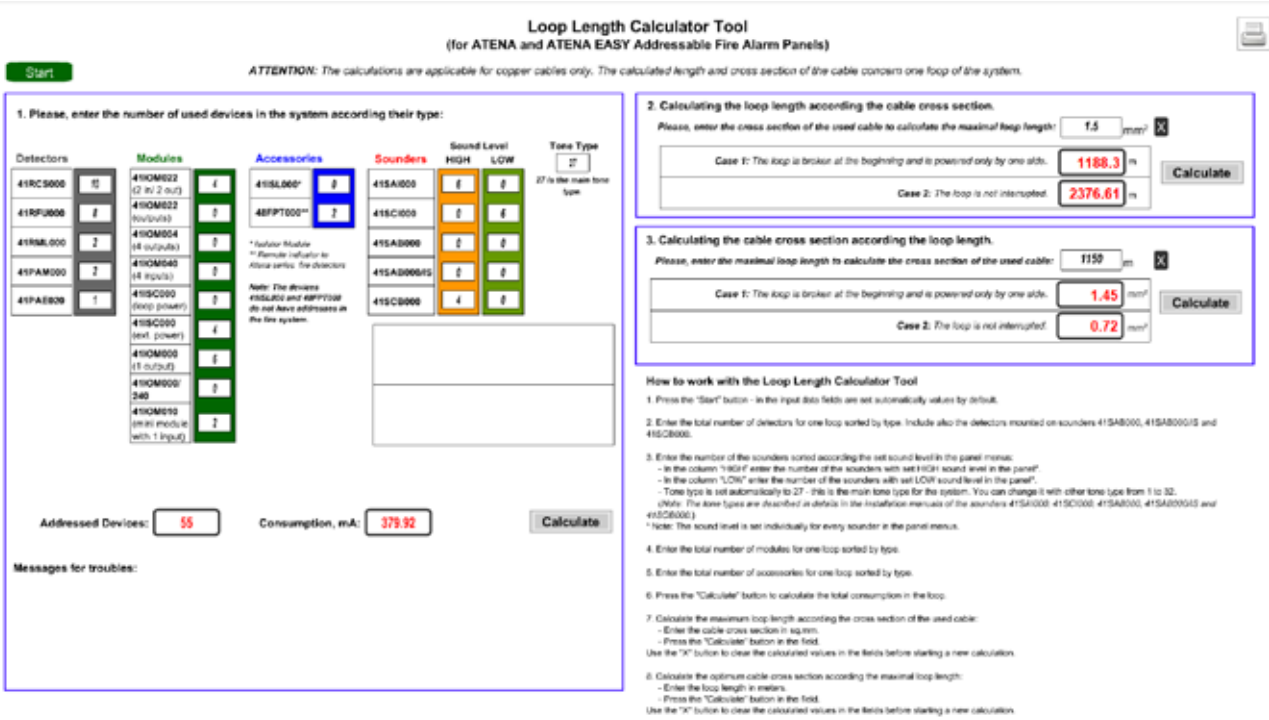
Using the battery calculation program, assuming a 40 hour standby time and 30 minutes
with 2 x 41RFU000, 2 x 41SAI000 and 1 x 41SCI000 in alarm condition, entering the above data gives the following results:

- Minimum battery capacity required = 20.3 Ah
- Maximum current absorption in standby = 0.15 A
- Maximum current absorption in alarm state = 0.3 A

# COMELIT CALCULATION SOFTWARE EXAMPLE

ADDRESSABLE SYSTEM




THE ATENA PANEL BATTERY CHARGER SUPPLIES 2A CONSTANTLY AND IS CAPABLE OF CHARGING 100 Ah batteries, IN ACCORDANCE WITH REGULATION METHODS AND TIMESCALES

# ASPIRATING SMOKE DETECTION SYSTEMS

## WHAT ARE THEY?

Aspirating smoke detectors draw in air for analysis from the protected area through pipes with holes or capillary pipes. The pipes convey the aspirated air to a sensor, which can be positioned at a distance from the protected area, thereby allowing easier and more economic maintenance. For suspended ceiling protection, for example, inspection hatches are not required as the network of pipes running through the suspended ceiling does not require maintenance; maintenance is only required for the machine, which can even be positioned outside the protected area and therefore in a more accessible location. Simply use a compressor to blow air through the coupling between the pipe and the machine. With an aspirating system, no wiring is required in the protected area; all that is required is the installation of a simple plastic pipe. It is possible to create a completely invisible detection system, hiding the sampling pipe in the space above the suspended ceiling and using capillary pipes (small diameter pipes) with small holes to draw air from the protected area and convey it to the detection unit.

## WHERE SHOULD THEY BE INSTALLED?

This type of fire detection system is ideally suited to the following situations:

- Areas where detection would otherwise be difficult, such as, for example, in clean rooms, telephone exchanges, suspended ceilings, technical rooms, air ducts, etc..
- Aesthetically sensitive environments, such as museums, historic buildings, facilities with complex architecture etc..
- Environments where access to the system for maintenance purposes is difficult, such as cattle sheds, prisons, underground stations, etc..

## WHAT REGULATIONS APPLY?

All aspirating systems must be approved to EN54-20.

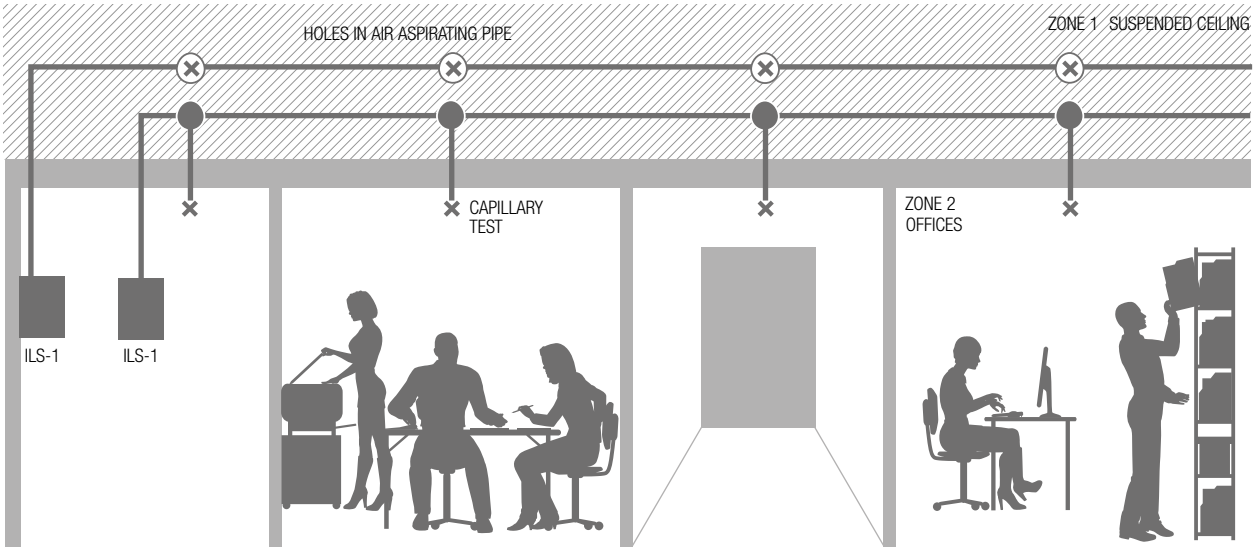
EN54-20 divides aspirating smoke detection systems into 3 classes according to their sensitivity:

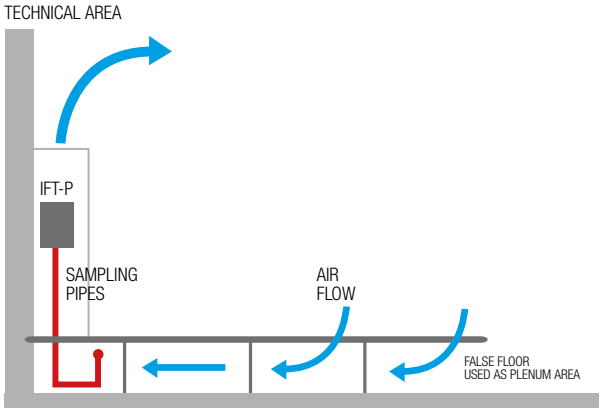
- Class C - Normal sensitivity (equivalent to the sensitivity of a point detector system). Can be used in rooms up to 8 m high.
- Class B - Enhanced sensitivity (greater sensitivity than a point detector system). Can be used in rooms up 12 m high.
- Class A - Very high sensitivity (environments with high air recirculation rate or environments requiring very early warning). Can be used in all types of premises.

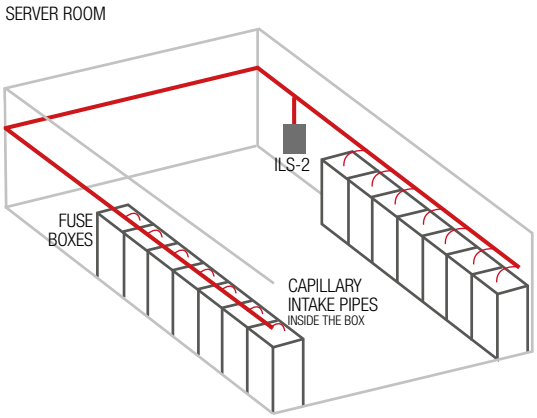
One aspirating hole is equal to a smoke optical detector with standard sensitivity. Please refer to local regulations for sizing.

| Product codes | **ILS-1** | **ILS-2** | **IFT-P** |
|---|---|---|---|
| Description | Aspirating detector<br>1 zone 1 detector | Aspirating detector<br>2 zone 2 detectors | Aspirating smoke detector<br>1 zone 2 channels |
| Certification | **EN54-20** | **EN54-20** | **EN54-20** |
| Maximum number of holes per pipe - class A | 3 | 3 | 12 |
| Maximum number of holes per pipe - class B | 6 | 6 | 36 |
| Maximum number of holes per pipe - class C | 18 | 18 | 36 |
| Sensitivity | 0.06% to 6.0% obs/m | 0.06% to 6.0% obs/m | 0.001% to 20% obs/m |

# APPLICATION EXAMPLE



# BEAM DETECTORS

## WHAT ARE THEY?

A linear optical smoke detector is a fire detection device that uses the attenuation and/or modulation of one or more optical beams to detect smoke. Usually they consist of a powered active unit, that comprises the functions of emitter and receiver, and an unpowered passive unit, that reflects the beam of light back to the active unit. When the active unit detects a difference between the light emitted and the light received, it triggers an alarm signal. The linear optical detector is able to determine whether an obscuration of the beam is due to the presence of smoke (partial blocking of the beam) or a physical object (total blocking of the beam). In the latter case, the unit relays a fault signal.

## WHERE SHOULD THEY BE INSTALLED?

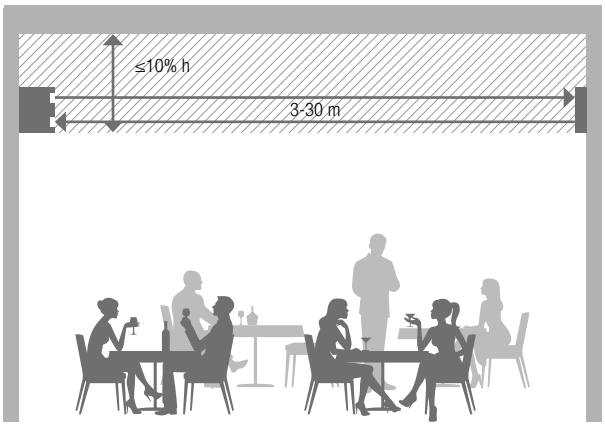
The possibility to protect large spaces with just one linear optical detector not only obviates the need to install several point smoke detectors, along with the associated wiring and preparation work, but also enhances the aesthetics of the protected area while facilitating maintenance. Usually linear optical detectors are installed in:

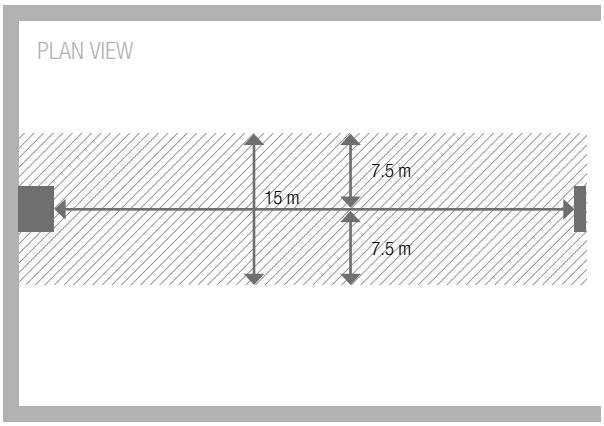
- Large buildings with big open spaces, such car parks, warehouses, dining rooms in restaurants and hotels, schools, long corridors, tennis courts and other sports facilities, hangars etc..
- Historic buildings and aesthetically sensitive environments, such as churches, museums, palaces, arenas, art galleries, luxury shops, etc..

| Code | Distance from ceiling (minimum) | Coverage |
|---|---|---|
| 48BFC000 | 30 cm | 3-30 m |
| 48BFC002 | 30 cm | 5-50 m |
| 48BFC003 | 30 cm | 50-100 m |

# APPLICATION EXAMPLE

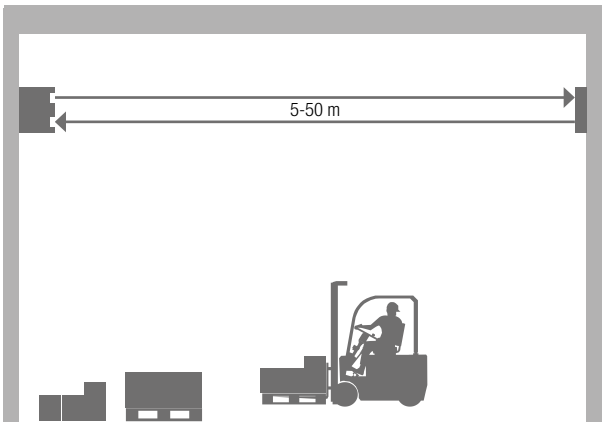
SMOKE DETECTOR 48BFC000

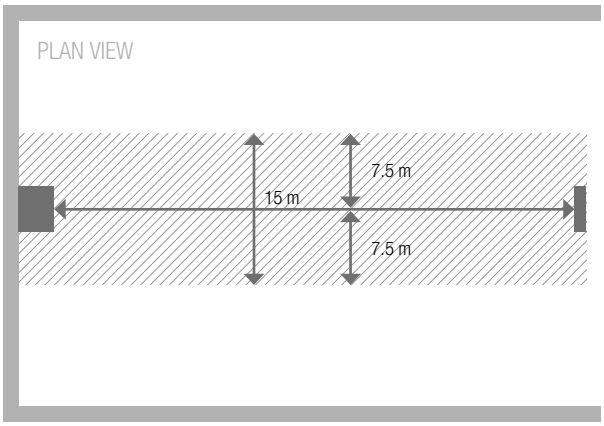



DINING ROOM - RESTAURANT

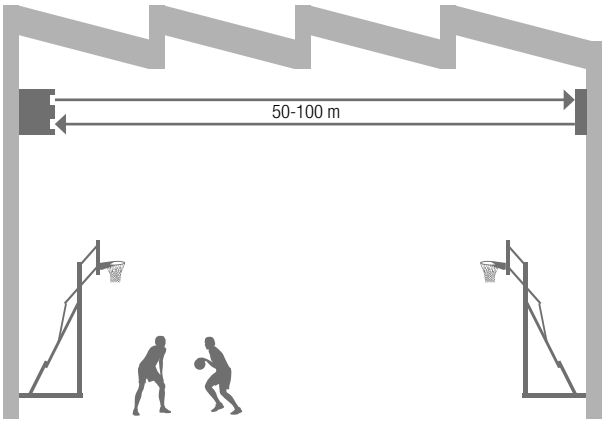
SMOKE DETECTOR 48BFC002

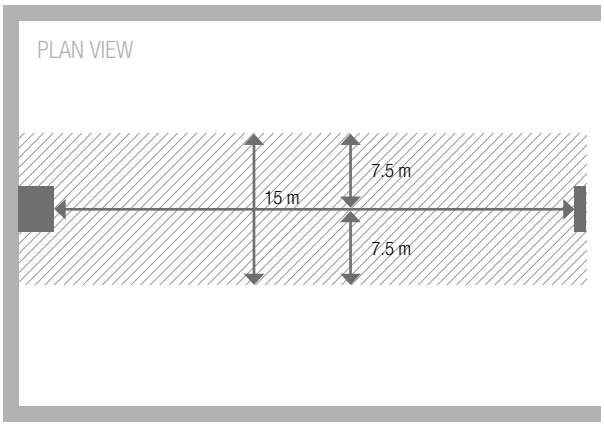



WAREHOUSE

SMOKE DETECTOR 48BFC003




GYMNASIUM WITH PITCHED OR SHED-STYLE CEILING

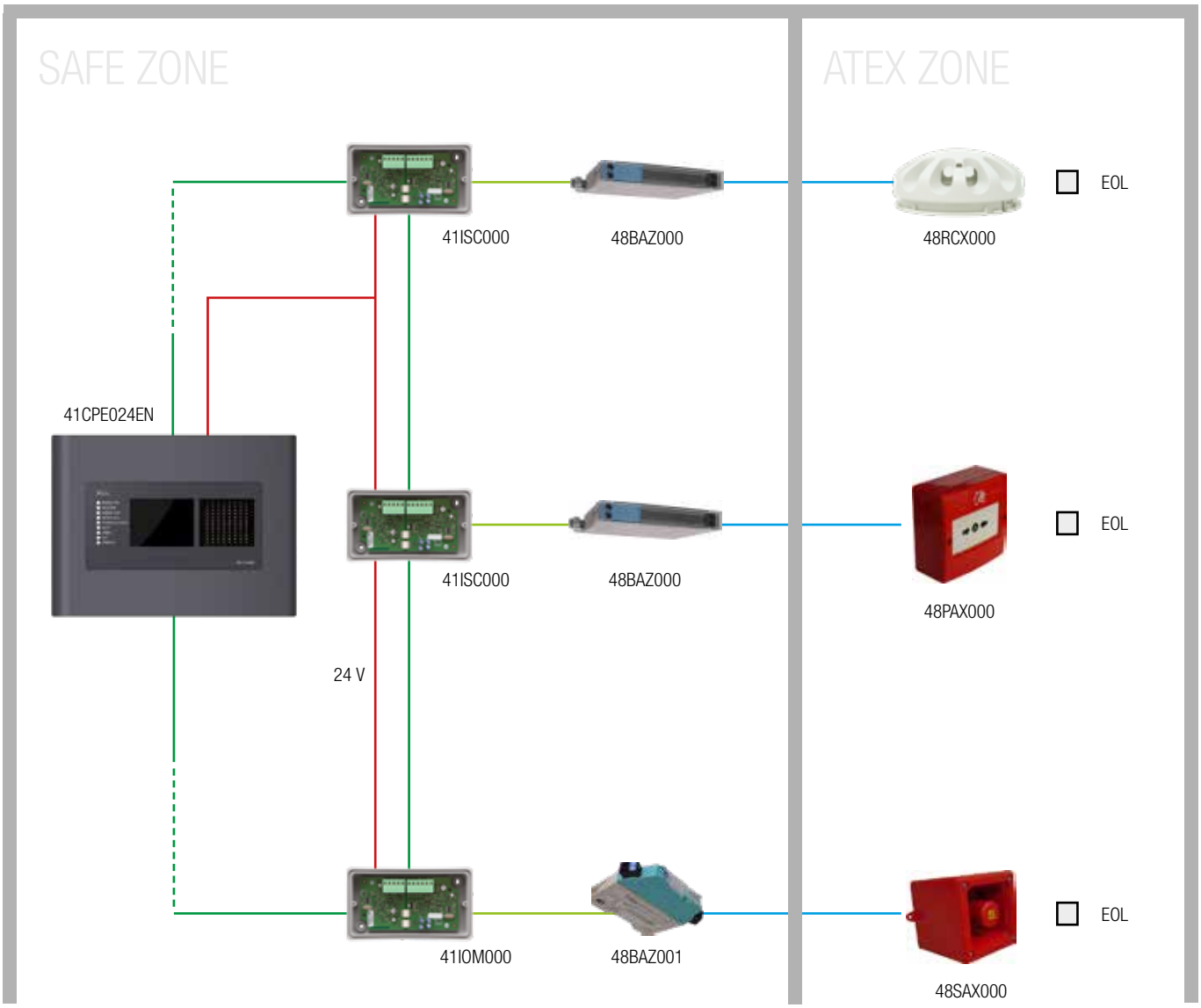
*The percentage may vary depending on the maximum height of the gables

# ATEX SYSTEMS

## WHAT ARE THEY?

The word ATEX comes from "**AT**mosphères and **EX**plosibles", i.e. places in which there is a high risk of explosion due to the atmospheric conditions and the elements placed in the environment in question. Fire alarm systems in ATEX zones must employ devices with very low operating voltages to avoid the creation of sparks that could start a fire or cause an explosion.

In these areas the rapid response of fire detectors is essential, as is the need to initiate evacuation promptly. Comelit fire alarm equipment for Atex zones ensures safety and reliability, interfacing with the panel via a Zener barrier and module 41ISC000 on the loop. A typical layout is shown below for an installation in a chemical factory.



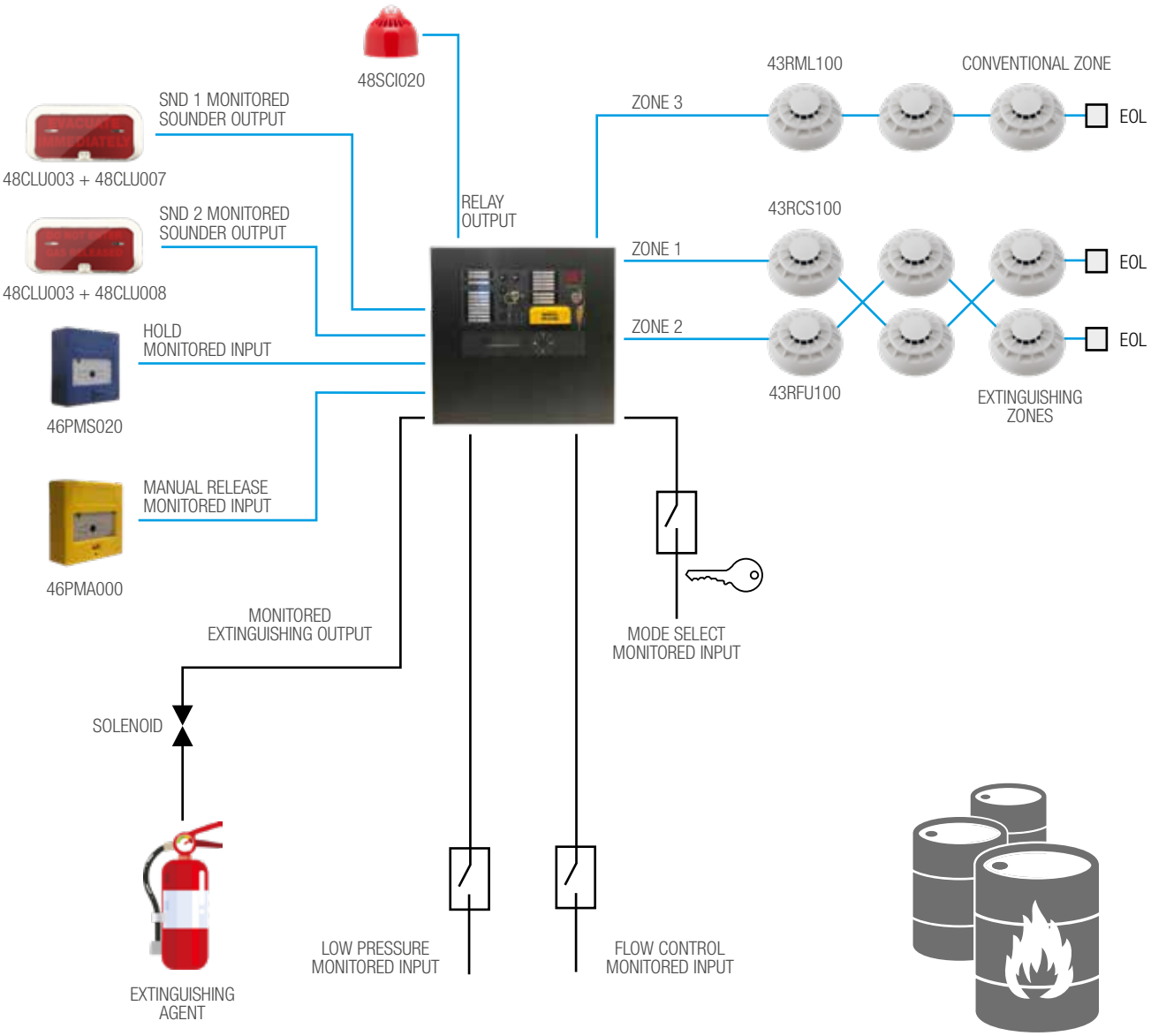
# EXTINGUISHING PANEL

## WHAT IS IT?

Conventional panel 46EST003 for the detection and extinguishing of fires was designed for the use and monitoring of powder, gas, condensed aerosol, water or other types of extinguishers.

This panel is divided into 2 operational sections, extinguishing and fire detection, and was designed to extinguish in one zone. It can work with solenoid valves, pressure switches and other types of actuator.

After processing the signals coming from automatic fire detectors/manual activation buttons, the panel transmits commands to the extinguishing execution devices, visual and audible signalling units, ventilation devices, etc...
Below is an installation example for our extinguishing panel:



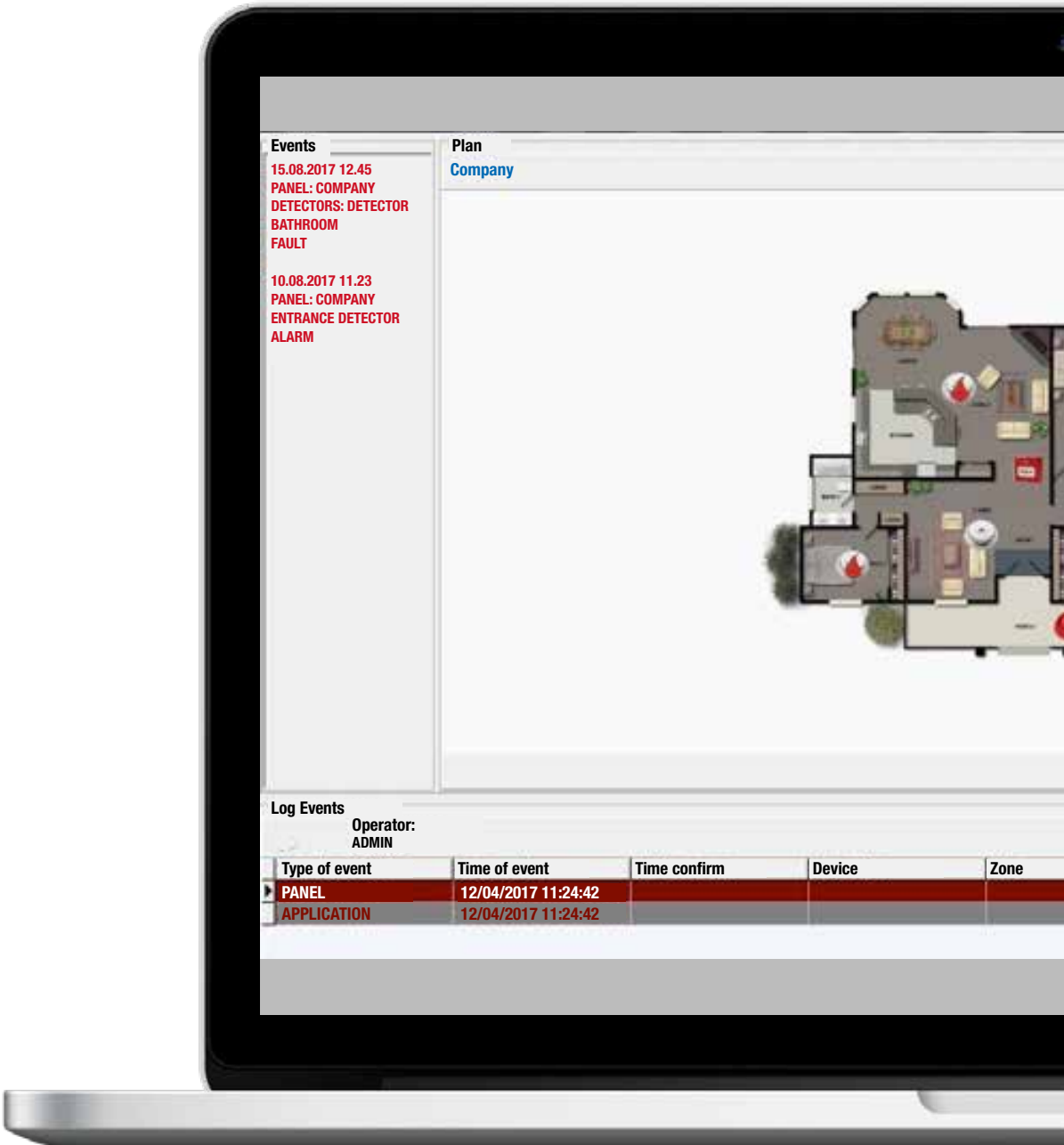
# ATENA MANAGER SUPERVISION SOFTWARE

## WHAT IS IT?

Atena manager is supervision software for installations equipped with the Atena addressable control panel (art. 41CPE024EN). This programme enables you to view a graphic image of the protected building and the status of the entire system, and to execute system commands when necessary. The control panel is connected to the supervision software via a LAN cable.

## HOW DOES IT WORK?

The software is simple to use and effective. Once the software is installed, you can load building schematics (JPG, BMP, PNG, TIF, GIF) and then enter graphically all the devices in the system.
Atena Manager can control up to 32 Atena control panels connected in a network, with 1000 devices per control panel. It signals all alarm and fault conditions and enables the user to silence buzzers, sirens, to launch an evacuation procedure and to reset the control panel. In the event of an alarm on a floor of the building, the software will automatically display the image of the area in question in the foreground and indicate the device which generated the alarm.



Objects
Building
Entrance detector
Corridor detector
Office detector
Bathroom detector
Corridor manual button
Entrance manual
button
Corridor siren
Bathroom siren
2I/2o module entrance
4 Module entrance
Panels
Element
State
User confirm
OFF LINE
START

# COMPACT VOICE EVACUATION PANELS APPROVED TO EN54-16 AND EN54-4

Voice evacuation systems are an increasingly essential element of fire detection systems. Leading evacuation with pre-recorded voice messages designed specifically for the type of system in which they are used, they help people inside the building to follow evacuation procedures in the safest way possible. These systems can also be used to broadcast music in normal conditions, giving priority to evacuation and alert messages in emergency conditions. This means these systems are ideal for use in public environments such as supermarkets, airports, schools, etc.
Comelit compact voice evacuation panels are approved in accordance with European standard EN54-16 for the voice evacuation part and EN54-4 for the power supply part.

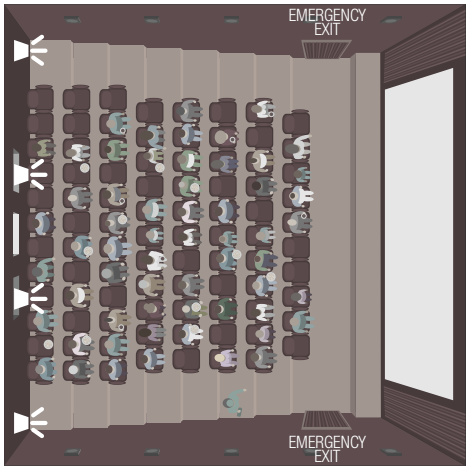
## SPECIAL FEATURES

The new compact panels 49CCO002, 49CCO004 and 49CCO006 measure 62 x 43 x 24 cm, weighing significantly less than traditional evacuation panels, meaning they can be surface-mounted. These panels are equipped with a flat transducer which allows optimal consumption management during battery operation. In this situation the panel checks the system status regularly, thereby reducing battery usage and making it possible to use just 2 x 18 Ah batteries in a 100 W system.

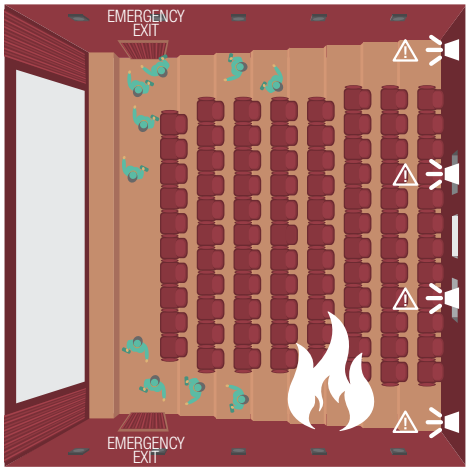
## SITUATION TYPE

Below is a typical situation in which voice evacuation systems play a fundamental role.

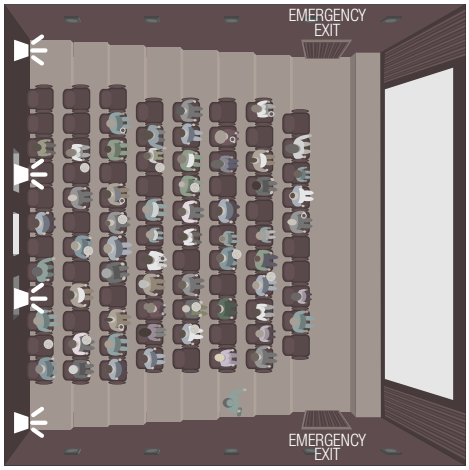
CINEMA



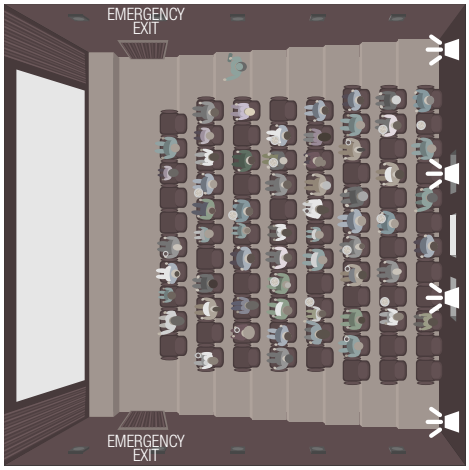

THEATRE 1 - ALARM




THEATRE 2 - EVACUATION




THEATRE 3 - ALARM




THEATRE 4 - ALARM

Procedure in the event of evacuation:

- A fire starts in theatre 2 of a multiplex cinema.
- The linear barrier detects smoke and triggers an alarm in the panel.
- The fire alarm panel activates the voice evacuation panel, which begins to broadcast two different messages.
- In theatre 2, where the fire is, the speakers broadcast the evacuation message, guiding the evacuation of the people inside: Message example: “ATTENTION PLEASE: WE NEED TO EVACUATE THE BUILDING. PLEASE LEAVE THE BUILDING IMMEDIATELY THROUGH THE EMERGENCY EXIT IN THIS THEATRE.”
- In theatres 1, 3 and 4 the speakers broadcast an alert message informing people that an unusual situation has arisen inside the building. Message example: “ATTENTION PLEASE: THERE HAS BEEN AN INCIDENT IN THE BUILDING. PLEASE WAIT FOR FURTHER INFORMATION.”
- Once theatre 2 has been evacuated, the evacuation message will also begin playing in the other theatres.

The evacuation will therefore take place in a safe and orderly manner, assisting the people in immediate danger first, followed by those further away from the fire. A message explaining precisely how to behave prevents panic and helps to keep everyone safe.

# AUDIO DISTRIBUTION IN AN EVAC SYSTEM

When beginning to tackle the acoustic design of an environment, it is important to first assess the type of speakers, how powerful they are and the amplifier model, and then select the type of sound source and the loudspeaker connection system.

The position of the loudspeakers can be divided into the categories listed below.

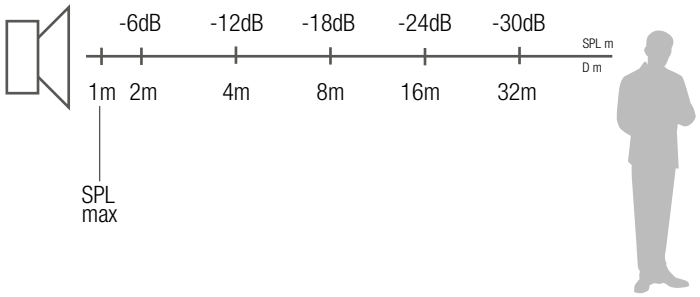
- Multi-point broadcasting: This solution guarantees the most uniform sound broadcasting and involves the use of a suitable number of well-distributed sound points (ideally in the ceiling) controlled at low power. This means that, even if there is reverberation in the environment in which the system is installed, by running at individual low volume levels there is less chance of experiencing annoying feedback.
- Ceiling broadcast: Installing loudspeakers on the ceiling (rain broadcasting) is the best sound system for announcements and background music. In some cases this may be impractical, due to the height and/or the specific structure of the building. This broadcasting mode should still be considered before all others.
- Wall broadcast: Wall installation is recommended in spaces where one of the two sizes in the plan is under 12 metres. If this is not the case, sound pressure distribution will not be uniform, however the sources are positioned on the wall. If the lower dimension on the environment plan does not exceed 6/7 metres, good results can be achieved by installing the speakers on one of the loner walls, at a height between 1.8 and 2 metres.
- Sound in corridors and emergency exits: Sound broadcasting in these environments is achieved with loudspeakers as sound projectors or horns arranged at equal distances and pointing in the same direction, whether installed in corridors or open-air routes. They must be connected in accordance with the phase and positioned no more than 15 metres away from each other, so that the listener can hear the sound from the nearest speaker as well as the sound coming from the previous one as (s)he moves along the line, with a delay greater than 50 m/sec, a delay which causes the transmitted message to start becoming unintelligible. An alternative to this type of installation is provided with the use of “two-way” speakers with “banner” installation along the corridor, regardless of whether they are on the wall or the ceiling and no more than 30 metres away from one another to avoid reverberation or echoes.

NB: The above description relates to the application of regulation parameters shown by calculations with specific software tools. ISO 7240-19 measuring method

## TABLE OF ACOUSTIC PRESSURE IN ENVIRONMENT TYPES

Acoustic pressure values in a free field are always expressed in dB SPL, or rather decibels calculated in Sound Pressure Level. In order to guarantee the spoken message can be understood, the average sound pressure level of the message must be at least 10 dBA at the existing environmental noise level. For a correct acoustic design, it is therefore essential to be aware of the noise level in the area in which the sound system needs to be set up; the table below provides a rough indication of the average values found in everyday environments.

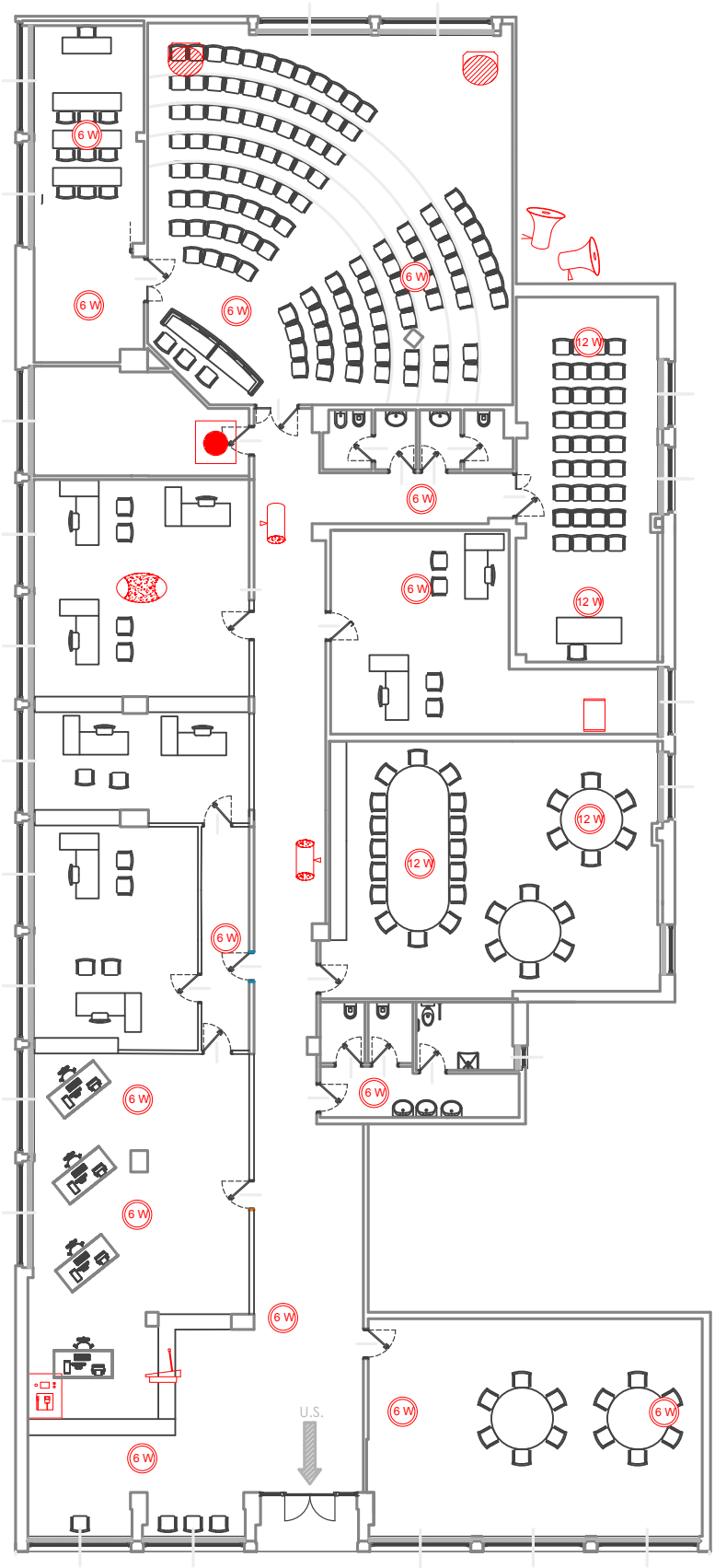
| ENVIRONMENT | NOISE (dB) |
|---|---|
| Stadium | 85-95 |
| Railway station | 70-80 |
| Workshop | 60-70 |
| Gym | 60-70 |
| Swimming pool | 50-60 |
| Meeting room | 50-60 |
| Supermarket | 50-60 |
| Car parks | 50-60 |
| Restaurant | 45-65 |
| Offices | 45-55 |
| Park | 40-50 |
| Hotel hallway | 40-50 |
| Classroom | 30-50 |
| Theatre | 30-50 |
| Church | 30-50 |
| Hotel bedroom | 30-45 |
| Hospital room | 30-45 |




As you can see from the above image, the sound level produced by a speaker decreases as the distance from the listening point increases.

If the absorption due to the environment is not taken into account, we can see that as the distance doubles this contributes to a weakening of -6 dB in the sound pressure level.

# AUDIO DISTRIBUTION SYSTEM APPLICATION EXAMPLE, EVAC SYSTEMS




VOICE EVACUATION SYSTEM LEGEND

| | |
|---|---|
| | COMPACT 6-ZONE EVAC PANEL EN54-16<br>Comelit 49CCO006 |
| | SQUARE METAL SPEAKER FOR WALL/CEILING 6 W EN54-24<br>Comelit 49DPQ006 |
| | OVAL METAL SPEAKER FOR WALL/CEILING 6 W EN54-24<br>Comelit 49DPO006 |
| | 12 W MONO-DIRECTIONAL SOUND PROJECTOR, EN54-24<br>Comelit 49PRM012 |
| | 6+6 W TWO-WAY SOUND PROJECTOR, EN54-24<br>Comelit 49PRB006 |
| | FLUSH-MOUNTED CEILING SPEAKER 6 W 180 mm EN54-24<br>Comelit 49PLA006 |
| | FLUSH-MOUNTED CEILING SPEAKER 12 W 220 mm EN54-24<br>Comelit 49PLA012 |
| | 20 W HORN SPEAKER, EN54-24<br>Comelit 49TRM020 |
| | FLUSH-MOUNTED RECTANGULAR SPEAKER 12 W EN54-24<br>Comelit 49DIR012 |
| | MONO-DIRECTIONAL ANTI-VANDAL SOUND PROJECTOR 20 W EN54-24<br>Comelit 49PRM020 |
| | MICROPHONE STATION WITH 6-ZONE MICROPHONE<br>Comelit 49PMS006 |

NB: Example designed in accordance with ISO 7240-19 - STI value shown via calculation performed with the help of specific calculation software

# GAS DETECTION SYSTEMS

## WHAT ARE THEY?

GAS detection systems are capable of selectively and reliably indicating the presence of toxic gases and flammable vapours. They are suitable for use in car parks, industrial areas and buildings. The gas sensor is a device which detects the presence of one or more types of gas inside an environment, in general as part of a security system. The types of Comelit gas sensors can be divided into the following categories on the basis of the transduction principle:

**ELECTROCHEMICAL**

The operating principle of electrochemical sensors ensures that the concentration of the gas you want to measure is directly proportional to the electrical current output of the sensor. Through a small opening, the gas being tested fills the sensor, passing through a membrane typically made of low-porosity thin Teflon film which prevents water vapour from passing through. This type of sensor therefore allows gas concentration to be converted into an electrical current outflow.

**CATALYTIC**

This sensor category is mainly used to detect combustible gases; their operating principle is based on a process of catalytic combustion, which allows a variation in gas concentration to be converted to a variation in resistance, effectively meaning that it is the resistance at the sensor output that is measured.

## TYPES OF GAS DETECTED:

**METHANE ($CH_4$) – KM series.** Combustible gas, lighter than air. Its density in relation to air is 0.55 and its LEL is 4.4%v/v (expressed in %Volume).

*The methane gas sensor must be secured at a height of 20/30 cm from the ceiling.*

**LPG – KG series**. A gas that is heavier than air, formed by a mix of 20-30% Propane ($C_3H_8$) and 80-70% Butane ($C_4H_{10}$). The density in relation to air is 1.56 for Propane and 2.05 for Butane; the LEL is 1.7%v/v for Propane and 1.4%v/v for Butane. LPG settings for should be applied as for Butane, since this is the major constituent of LPG.

*The LPG sensor must be secured at a height of 20/30 cm from the floor.*

**HYDROGEN ($H_2$) – KI series.** A colourless, odourless, highly flammable gas that is much lighter than air. Its density in relation to air is 0.07 and its LEL is 4%v/v (expressed in %Volume).

*The hydrogen sensor must be secured at a height of 20/30 cm from the ceiling.*

**GASOLINE – KB series.** Gasoline vapours are heavier than air and extremely flammable. Its density in relation to air is 2.8 on average and its LEL is approximately 1.2%v/v (expressed in %Volume).

*The gasoline vapours sensor must be secured at a height of 30/40 cm from the floor.*

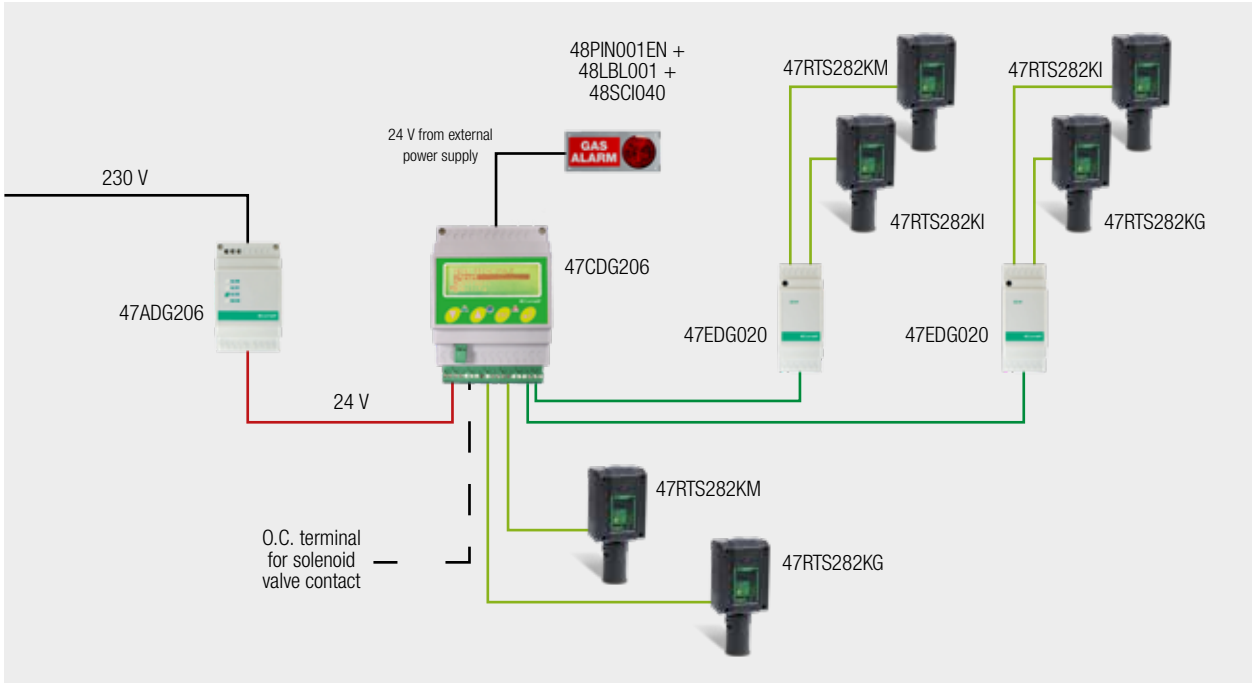
**CARBON MONOXIDE (CO) – EC-S series.** Carbon monoxide is a toxic, odourless, colourless gas, as light as air (its density in relation to air is 0.97); it is explosive at extremely high concentrations, in fact its LEL (Lower Explosive Limit) is 10.9%vol. CO is produced by the incomplete combustion of carbon-based fuels. If they do not burn properly, these fuels - gases, oils, wood and coal - form excess CO which, as it spreads through the environment, poses a serious risk to human health.

*The carbon monoxide sensor must be secured at a height of 1.60 m from the floor.*

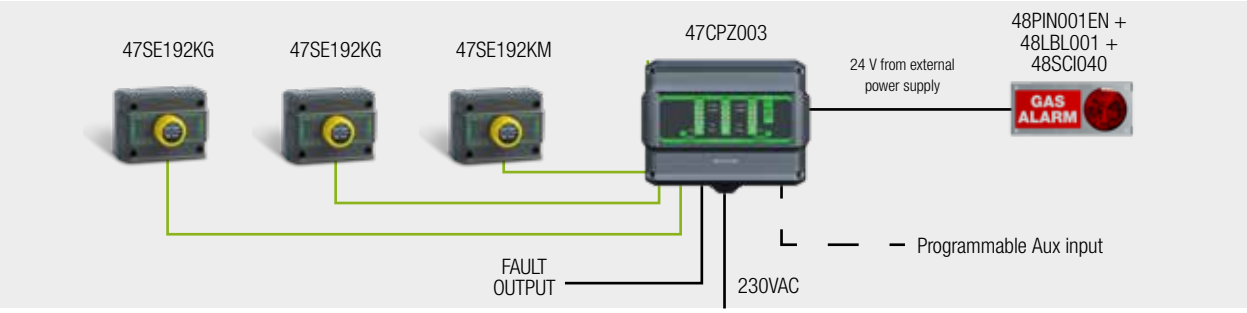
**OXYGEN ($O_2$) – EO series.** Oxygen is an odourless, colourless gas, slightly heavier than air (its density in relation to air is 1.1). It is not a flammable gas but, as it is a powerful oxidant, it reacts with combustible materials and reducing agents which results in the risk of fire and explosion because it acts as a catalyst for combustion. The air we breathe contains 20.95% Oxygen. If the concentration of $O_2$ in the air falls below 19.5% it is considered dangerous for human health; if the concentration then drops below 16% it causes respiratory problems until asphyxia occurs, and below 6% will result in instant death. Bear in mind that a lack of oxygen can be caused by combustion phenomena, by the increase of other gases (toxic and/or flammable) in the air and also by leaks of inert gases (Nitrogen, Helium, Argon, etc.). At high concentrations, over 24%, $O_2$ becomes irritating to the respiratory tract and can impact the central nervous system, eyes and lungs.

*The oxygen sensor must be secured at a height of 1.60 m from the floor.*

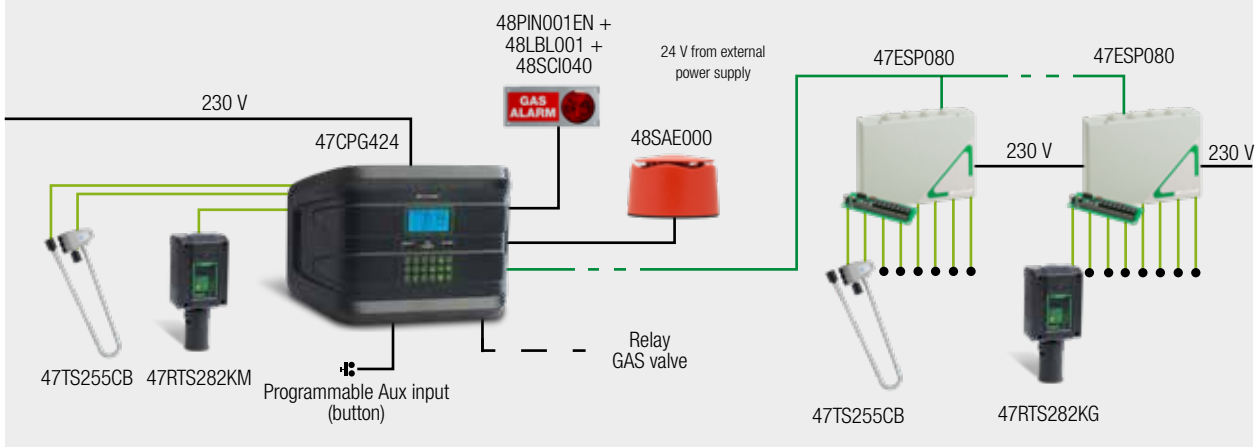
## EXAMPLE OF INSTALLATION WITH DIN RAIL MOUNTING GAS PANEL FOR RESIDETNTIAL/COMMERCIAL




## EXAMPLE OF INSTALLATION WITH 47CPZ003 GAS PANEL FOR COMMERCIAL APPLICATIONS




## EXAMPLE OF INSTALLATION WITH 47CPG424 GAS PANEL FOR INDUSTRIAL APPLICATION

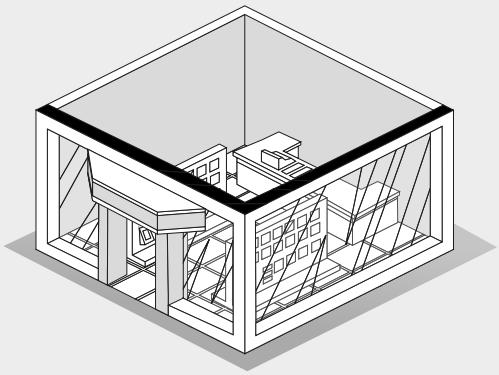



NB: Sensor 47TS255CB occupies 2 inputs, connection via 4 shielded cables.

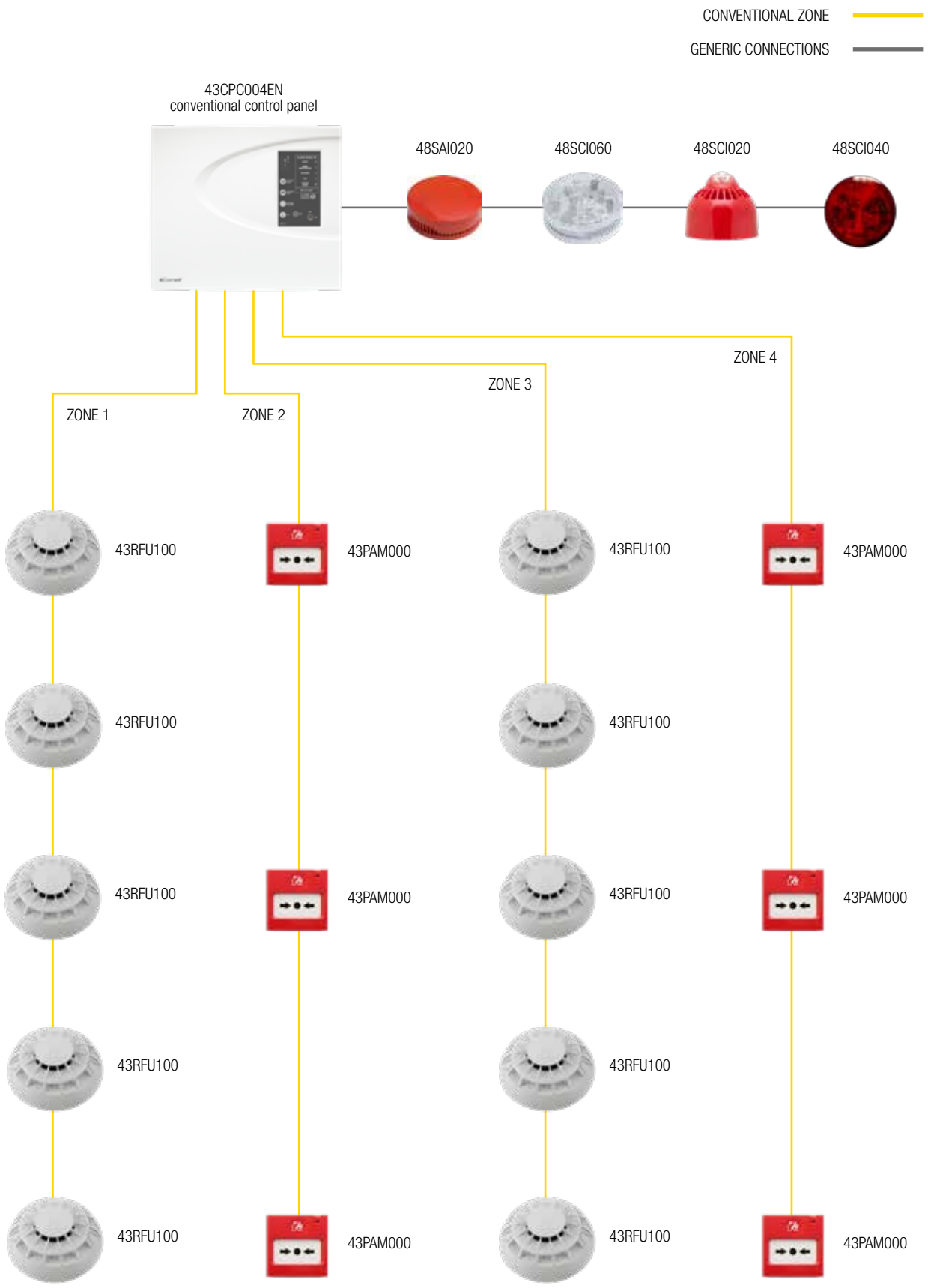
# APPLICATION
# SMALL COMMERCIAL FACILITY OFFICES

FIRE DETECTION SYSTEM

Comprised of Eracle conventional control panel for 4 zones, manual call points and smoke detectors.



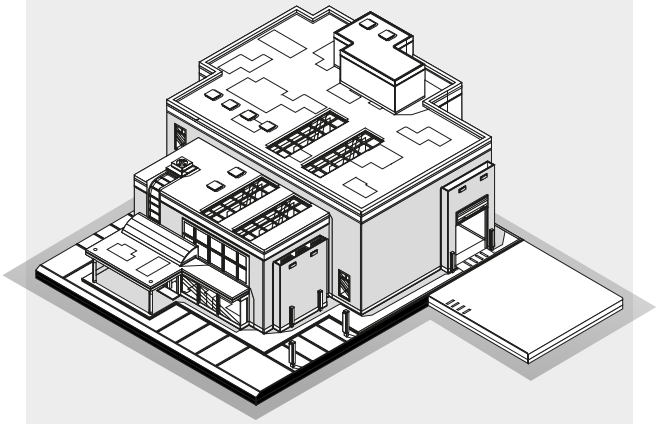
| Code | Description | Qty. |
|---|---|---|
| **43CPC004EN** | Eracle conventional 4-zone fire detection panel | 1 |
| **43RFU100** | Conventional optical smoke detector | 10 |
| **43PAM000** | Conventional manual call point | 6 |
| **48SAI020** | Indoor 32 tone siren | 1 |
| **48SCI060** | Sounder with white strobe | 1 |
| **48SCI020** | Wall-mounted siren + white strobe - IP21 | 1 |
| **48SCI040** | Sounder with red strobe | 1 |


CONVENTIONAL ZONE
GENERIC CONNECTIONS
43CPC004EN
conventional control panel
48SAI020
48SCI060
48SCI020
48SCI040
ZONE 1
ZONE 2
ZONE 3
ZONE 4
43RFU100
43PAM000

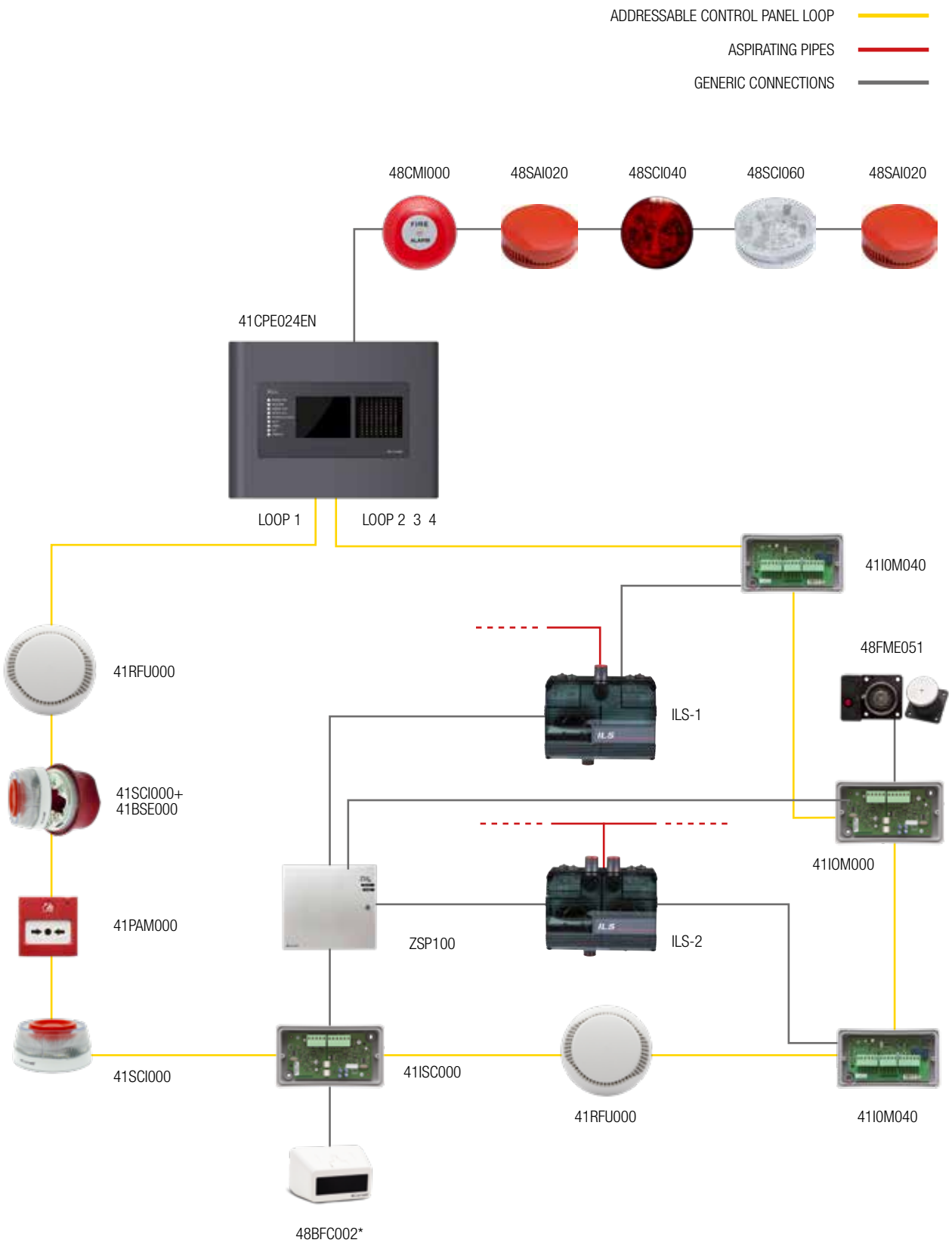
# APPLICATION
# INDUSTRIAL

FIRE DETECTION SYSTEM

Comprised of an Atena addressable control panel, manual alarm buttons, smoke detectors and indoor sirens; combined with aspirating system.

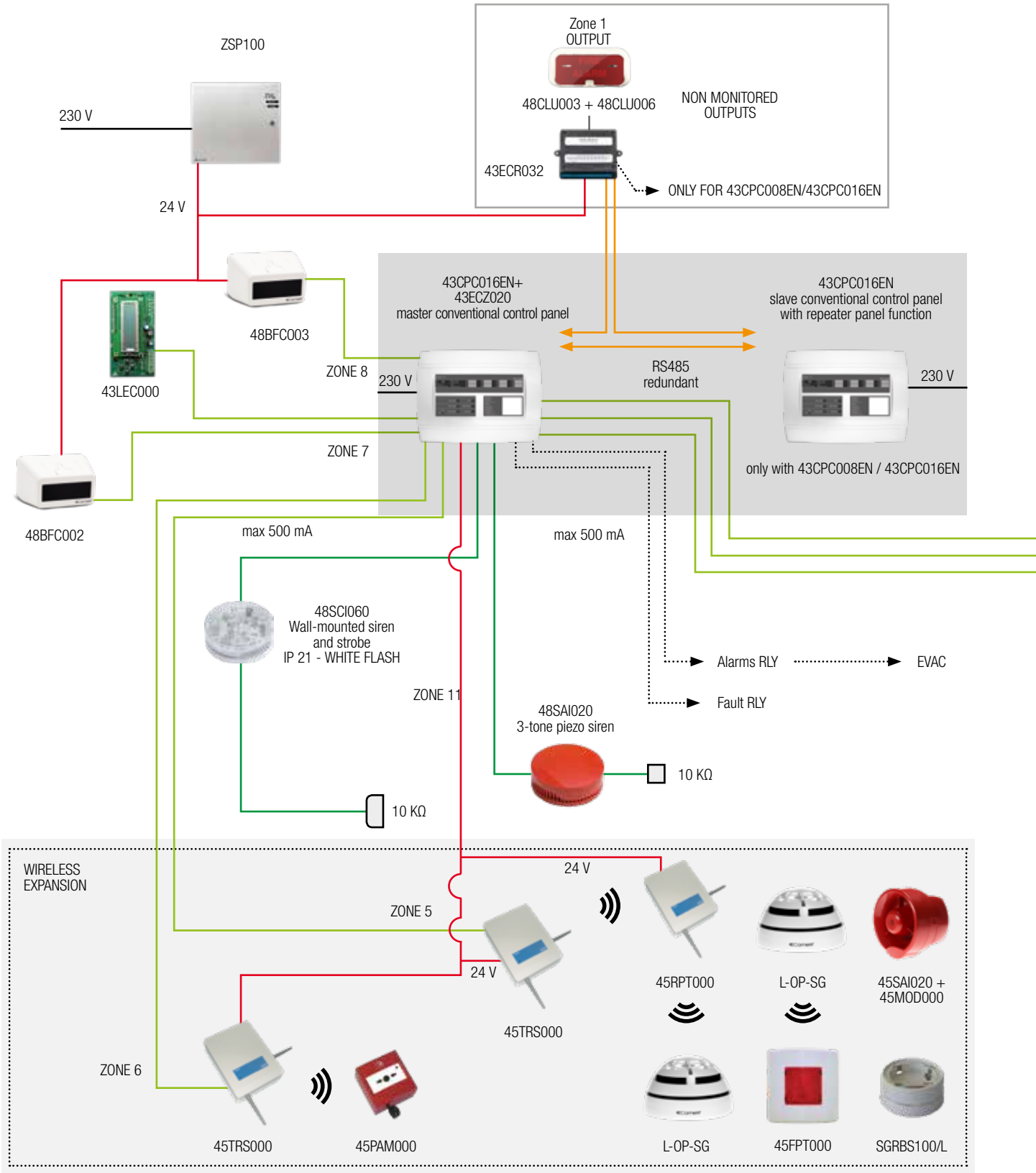


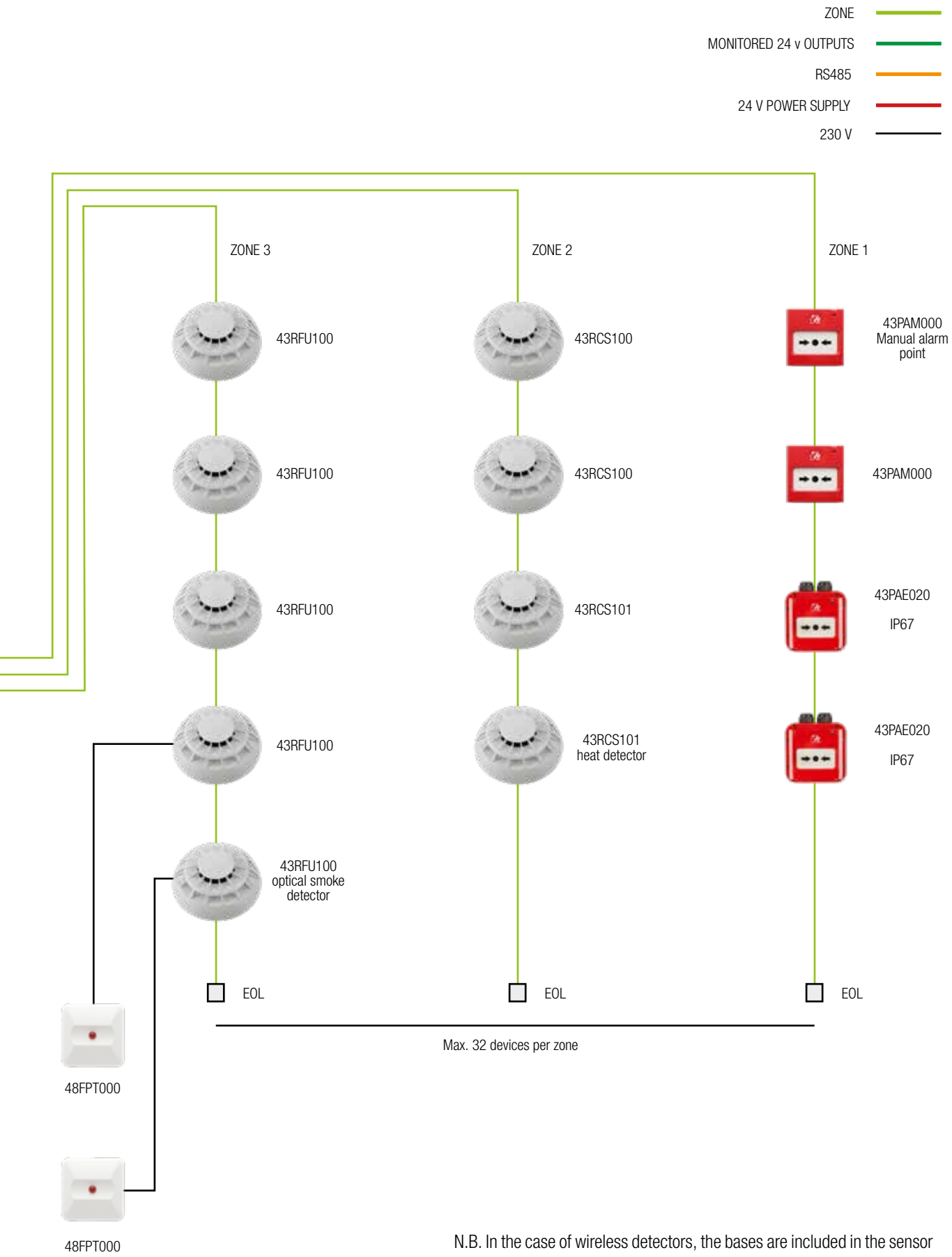
| Code | Description | Qty. |
|---|---|---|
| **41CPE024EN** | Atena expandable addressable fire detection control panel | 1 |
| **41ISC000** | Addressable module for conventional zone | 1 |
| **ILS-1** | Aspirating detector, 1 zone 1 detect. | 1 |
| **ILS-2** | Aspirating detector, 2 zone 2 detect. | 1 |
| **41IOM000** | Addressable module with 1 monitored output | 1 |
| **41IOM040** | Addressable module with four monitored inputs | 2 |
| **41RFU000** | Addressable optical smoke detector | 2 |
| **41SCI000** | Addressable indoor siren w/ strobe for conn. in loop | 2 |
| **41PAM000** | Addressable manual call point | 1 |
| **41BSE000** | Base for addressable sirens IP65 | 1 |
| **48BFC002** | Beam detector with reflector 5-50M | 1 |
| **ZSP100 - 5,5A - 18** | 5,5A Additional power supply unit | 1 |
| **48CMI000** | 6" Indoor bell - IP33C | 1 |
| **48SAI020** | Indoor 3-tone piezo siren 24vdc | 2 |
| **48SCI040** | Sounder with red strobe | 1 |
| **48SCI060** | Sounder with white strobe | 1 |
| **48FME051** | Magnetic door holder 50 Kg | 1 |




*Check the absorption of beam detectors with the current available

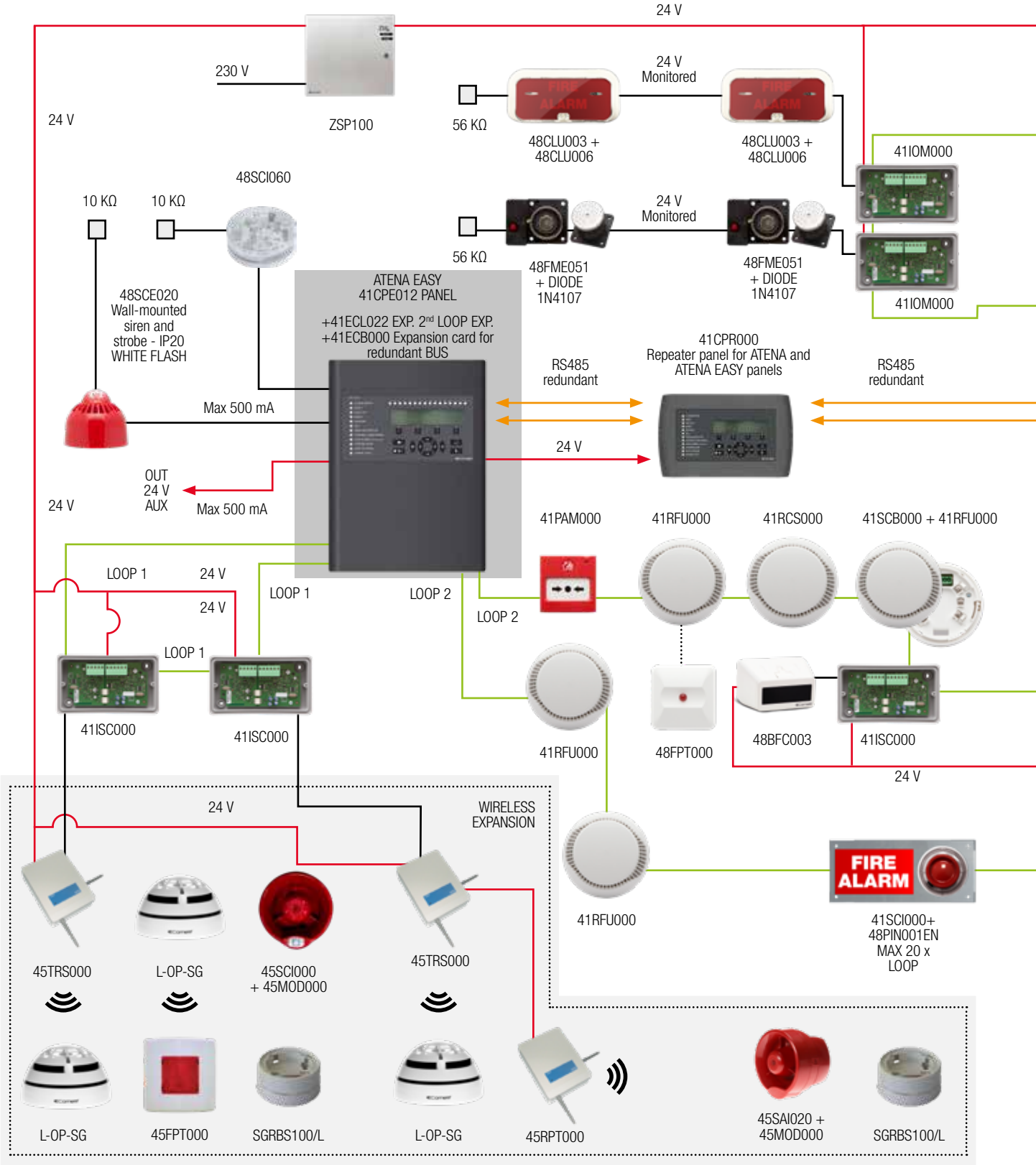
# CONVENTIONAL SYSTEM (GENERAL LAYOUT)

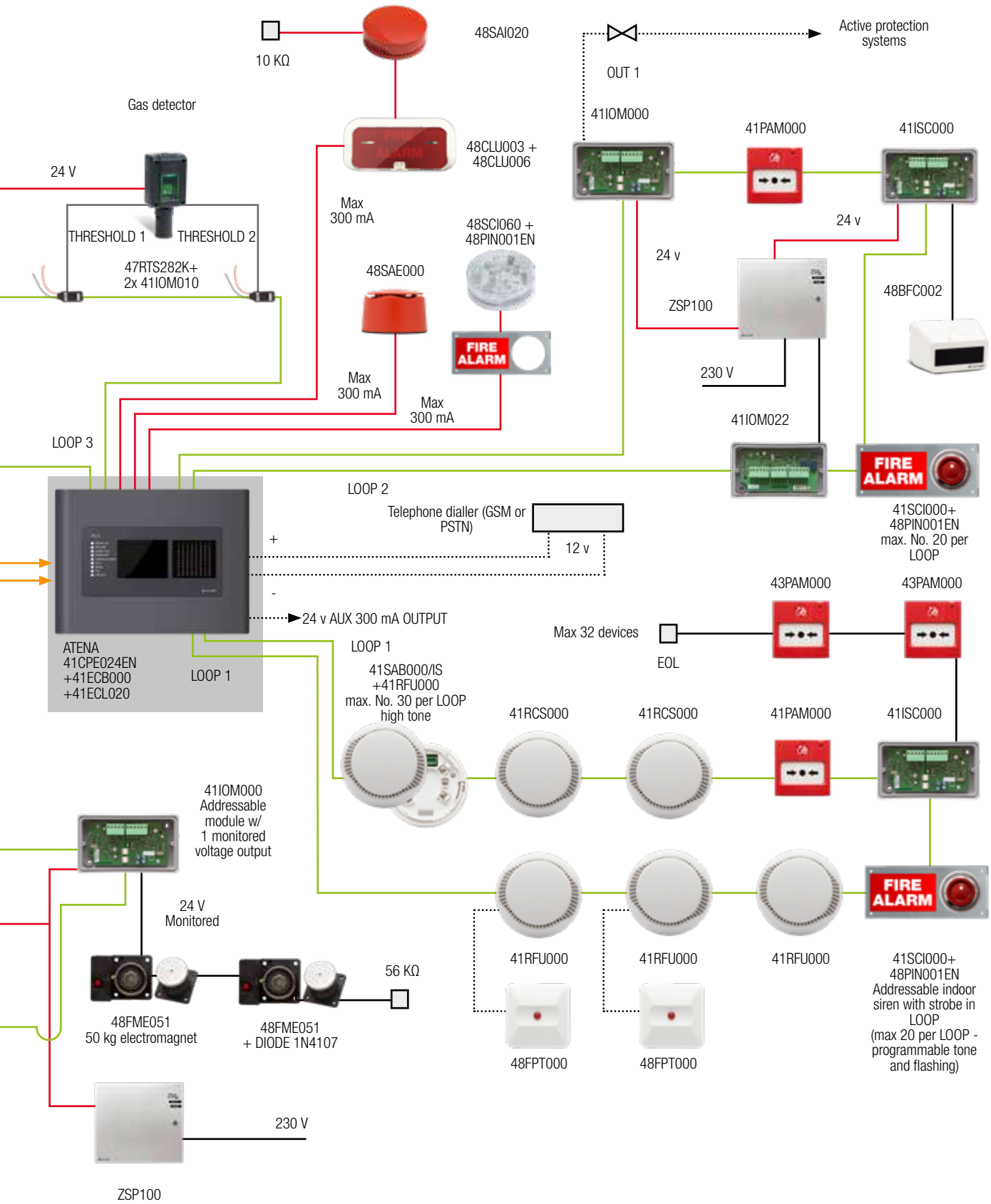





N.B. In the case of wireless detectors, the bases are included in the sensor

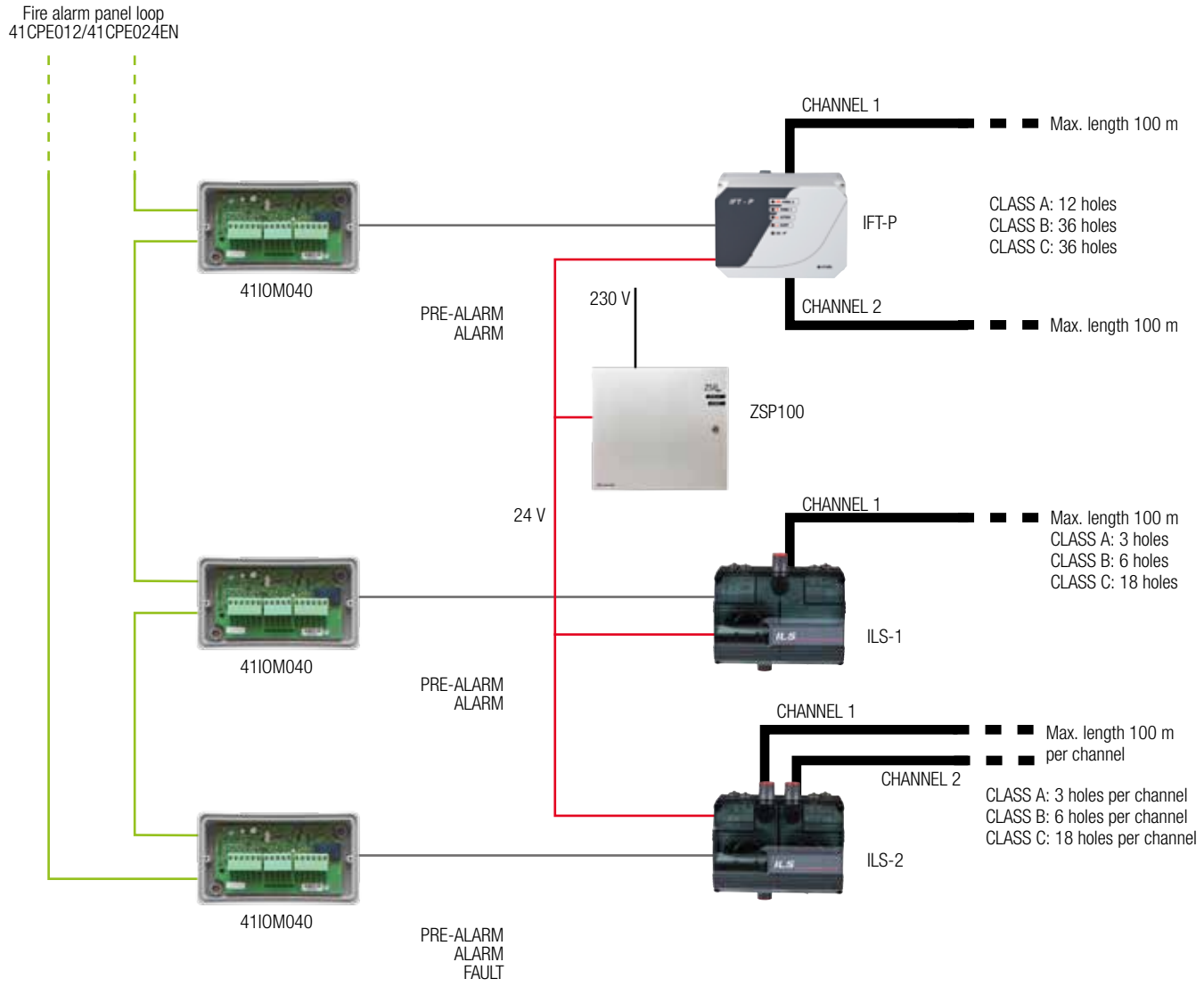
# ADDRESSABLE SYSTEM (GENERAL LAYOUT)



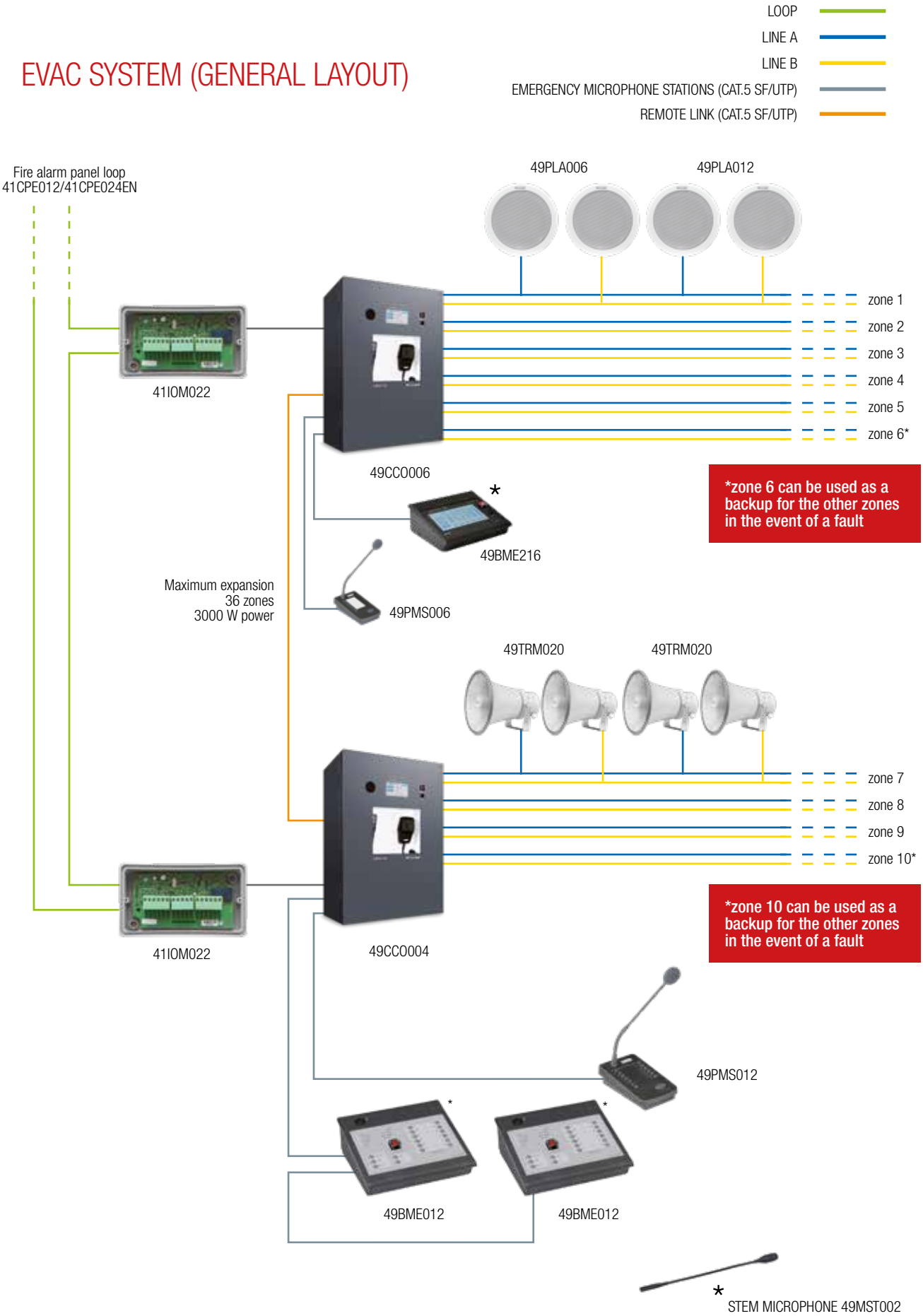



N.B.
Up to 250 addressable devices can be connected to each LOOP.
All the devices indicated can be connected in both Comelit addressable analogue panels.

# ASPIRATING SYSTEM (GENERAL LAYOUT)



# EVAC SYSTEM (GENERAL LAYOUT)



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# PRODUCT CATALOGUE
## FIRE DETECTION

## CONVENTIONAL PANELS

| | | | | | |
|---|---|---|---|---|---|
| | | | | | |
| | | ERACLE 2 | ERACLE 4 | ERACLE 8 | ERACLE 16 |
| | ARTICLE CODE | 43CPC002EN | 43CPC004EN | 43CPC008EN | 43CPC016EN |
| | | ERACLE CONV. FIRE ALARM PANEL 2 ZONES | ERACLE CONV. FIRE ALARM PANEL 4 ZONES | ERACLE CONV. FIRE ALARM PANEL 8 ZONES | CONVENTIONAL PANEL WITH 8 TO 16 ZONES |
| FUNCTIONS | REMOTE PANEL CONTROL | | | Yes | Yes |
| | NO. OF RELAYS WITH EXPANSION | | | 8 (with art. 43ECR032) | 16 (with art. 43ECR032) |
| | SIREN ACTIVATION DELAY | | | 1 - 10 minutes | 1 - 10 minutes |
| | DETECTION WITH CONFIRMATION (DUAL ACTION) | | | Yes | Yes |
| | INSTANT ZONE | | | Programmable | Programmable |
| | NUMBER OF 4-ZONE EXPANSION UNITS | | | | 2 (2 x art. 43ECZ020 max.) |
| | NUMBER OF 4-SIREN EXPANSION UNITS | | | | 1 (with art. 43ECS020) |
| HARDWARE CHARACTERISTICS | NUMBER OF DETECTION ZONES AVAILABLE | 2 | 4 | 8 | 8, expandable up to 16 |
| | COMELIT SENSORS AND ALARM BUTTONS PER ZONE (MAX) | 32 | 32 | 32 | 32 |
| | MONITORED OUTPUTS | 2 (0.3 A max. each) | 2 (0.3 A max. each) | 2 (0.3 A max. each) | 2 (0.3 A max. each) |
| | NO. OF FIRE RELAYS | 1 (3 A@120 VAC, 3 A@60 VDC) | 1 (3 A@120 VAC, 3 A@60 VDC) | 1 (3 A@24 VDC) | 1 (3 A@24 VDC) |
| | NO. OF FAULT RELAYS | 1 (3 A@120 VAC, 3 A@60 VDC) | 1 (3 A@120 VAC, 3 A@60 VDC) | 1 (3 A@24 VDC) | 1 (3 A@24 VDC) |
| GENERAL DATA | IP PROTECTION RATING | IP30 | IP30 | IP30 | IP30 |
| | DIMENSIONS (W X H X D - mm) | 340x290x100 | 340x290x100 | 340x290x100 | 441x331x80 mm |
| | OPERATING TEMPERATURE (°C) | -5 to 40 | -5 to 40 | -5 to 40 | -5 to 40 |
| | MAX. OPERATING HUMIDITY RH (%) | (93 ± 3)% @ 40°C | (93 ± 3)% @ 40°C | (93 ± 3)% @ 40°C | (93 ± 3)% @ 40°C |
| | STORAGE TEMPERATURE (°C) | -20 to 60 | -20 to 60 | -20 to 60 | -20 to 60 |
| | CERTIFICATION STANDARD | EN54-2, EN54-4 | EN54-2, EN54-4 | EN54-2, EN54-4 | EN54-2, EN54-4 |
| | ENCLOSURE | Plastic | Plastic | Plastic | Plastic |
| | PLASTIC COVER DIMENSIONS (WXHXD - MM) | | | | 444x461x45 mm |
| | WEIGHT WITHOUT BATTERY (G) | 2100 | 2100 | 2400 | 4000 |
| | LEVEL 2 PROTECTION | Mechanical key | Mechanical key | Mechanical key | Mechanical key |
| | ALERTS | LED | LED | LED | LED |
| | MAX. CONNECTION CABLE CROSS-SECTION ($mm^2$) | 1 to 2.5 | 1 to 2.5 | 1 to 2.5 | 1 to 2.5 |
| ELECTRICAL SPECIFICATIONS | MAIN POWER SUPPLY | 230 VAC ±10% (0.3 A fuse) | 230 VAC ±10% (0.3 A fuse) | 230 VAC ±10% (0.3 A fuse) | 230 VAC ±10% (2 A fuse) |
| | BACKUP POWER SUPPLY (BATTERIES NOT SUPPLIED) | 1x 12 VDC, 7 Ah, 2 A fuse | 1x 12 VDC, 7 Ah, 2 A fuse | 1x 12 VDC, 7 Ah, 2 A fuse | 1x 12 VDC, 18 Ah, 4.5 A fuse |
| | POWER SUPPLY FOR EXTERNAL DEVICES (VDC) | 24 (0.3 A max) | 24 (0.3 A max) | 24 (0.3 A max) | 24 (0.3 A max) |
| | ZONE ALARM THRESHOLDS (mA) | 10 to 110 | 10 to 110 | 10 to 110 | 10 to 110 |
| | NETWORK POWER ABSORPTION (mA) | 50 | 50 | 50 | 50 |
| | MAX. POWER ABSORPTION OF CONNECTED DEVICES WITH CHARGED BATTERY (A) | 0.7 | 0.7 | 0.7 | 0.7 |
| | CIRCUIT OUTPUTS FOR SIRENS | 24 VDC/0.3 A, 0.3 A fuse | 24 VDC/0.3 A, 0.3 A fuse | 0.5 A@24 VDC, 0.5 A fuse (PTC) | 24 VDC/0.3 A, 0.3 A fuse |
| | OUTPUTS CIRCUIT FOR SIRENS 2 | 24 VDC/0.3 A, 0.3 A fuse | 24 VDC/0.3 A, 0.3 A fuse | 0.5 A@24 VDC, 0.5 A fuse (PTC) | 24 VDC/0.3 A, 0.3 A fuse |
| | ZONE POWER SUPPLY AND SHORT CIRCUIT THRESHOLDS (mA) | > 110 | > 110 | > 110 | > 110 |
| | ZONE FAULT OR OPEN CIRCUIT THRESHOLDS (mA) | 2 | 2 | 2 | 2 |
| | ZONE POWER SUPPLY VOLTAGE AND NORMAL MODE THRESHOLDS (mA) | 2 to 10 | 2 to 10 | 2 to 10 | 2 to 10 |
| | FAULT RELAY AND ALARM RELAY OUTPUTS SWITCHING WITH VOLTAGE-FREE CONTACTS | 3 A@120 VAC, 3 A@60 VDC | 3 A@120 VAC, 3 A@60 VDC | 3 A@120 VAC, 3 A@60 VDC | 3 A@120 VAC, 3 A@60 VDC |

## CARDS AND ACCESSORIES FOR CONVENTIONAL PANELS

**43ECR032**

### 8 RELAY EXPANSION MODULE FOR ERACLE 8 AND ERACLE 16

The 8 relay expansion module can be connected to the ERACLE 8 and ERACLE 16 panel via serial port. Each relay is associated with a zone and will be activated in the event of a fire alarm being generated in that zone. Power supply voltage: 24 VDC. Current consumption on standby: 8 mA. Additional consumption for each active relay: 10 mA. Maximum current absorption: 2 A. Contacts capacity: 1 A@12 V or 0.5 A @24 VDC. Cable cross section: 1.5 - 2.5 mm2. Operating temperature -5°C - +40 C. Operating relative humidity: 93% (± 3%)@40°C. Dimensions:(HxWxD): 130x111x41 mm. Weight: 0.4 kg

**43CRE000**

### SET OF 5 PAIRS OF KEYS FOR ERACLE PANEL

Set of 5 pairs of keys for Eracle panel.

**43EOL000**

### SET OF 5 END-OF-LINE RES. FOR CONVENTIONAL ZONE

Set of 5 end-of-line resistors for conventional zone.

**43ECZ020**

### 4 ZONE EXPANSION MODULE FOR ERACLE 16

4 zone expansion module for ERACLE 16 Up to 32 devices can be connected to each zone. Absorption in standby mode 130 mA. Absorption in alarm mode 330 mA. Dimensions 57x81 mm. Weight 200 g.

**43ECS020**

### 4 SIREN EXPANSION MODULE FOR ERACLE 16

Expansion module with 4 siren lines for ERACLE 16 Absorption in alarm mode 150 mA. Operating temperature 0°C to +40°C. Weight 200 g. Dimensions 57x81 mm.

**43LEC000**

### EVENT LOG FOR ERACLE 16

Event log for Eracle 16. Number of events in the memory 510. Rated voltage 24 Vd/c. Absorption in standby mode 25 mA. Absorption with backlighting activated: 55 mA ± 2 mA. Maximum absorption with backlighting and relay output activated: 76 mA ± 2 mA. Dimensions: 125x66 mm

## CONVENTIONAL DETECTORS

| | | | | | |
|---|---|---|---|---|---|
| | | | | | |
| | ARTICLE CODE | 43RCS100 | 43RCS101 | 43RFU100 | 43RML100 |
| | | CONVENTIONAL HEAT AND RATE OF RISE DETECTOR | CONVENTIONAL HEAT DETECTOR | CONVENTIONAL OPTICAL SMOKE DETECTOR | CONVENTIONAL MULTI-CRITERIA SMOKE/HEAT DETECTOR |
| FUNCTIONS | SELF DIAGNOSIS | Yes | Yes | Yes | Yes |
| | LED INDICATORS | 2, 360° visibility | 2, 360° visibility | 2, 360° visibility | 2, 360° visibility |
| | DRIFT COMPENSATION | | | Yes | |
| HARDWARE CHARACTERISTICS | IP PROTECTION RATING (IP CODE) | IP30 | IP30 | IP30 | IP30 |
| GENERAL DATA | DETECTOR CLASS (IN ACCORDANCE WITH A EN54-5) | A1/R | A2/S | N/A | A1/R |
| | COLOUR | White | White | White | White |
| | DIMENSIONS (ØXH - mm - BASE INCLUDED) | 102x42 | 102x42 | 102x42 | 102x48 |
| | WEIGHT (G) | 160 | 160 | 160 | 170 |
| | CABLE CROSS-SECTION ($mm^2$) | 0.4 to 2.5 | 0.4 to 2.5 | 0.4 to 2.5 | 0.4 to 2.5 |
| | CERTIFICATION STANDARD | EN54-5 | EN54-5 | EN54-7 | EN54-5, EN54-7 |
| | TYPE OF DETECTION POINT | Heat detector with fixed threshold 58°C + rate of rise detector | Heat detector with fixed threshold 60°C | Optical smoke detector | Multi-criteria smoke/heat detector + rate of rise detector |
| TECHNICAL CHARACTERISTICS | OPERATING TEMPERATURE (°C) | -10 to 60 | -10 to 60 | -10 to 60 | -10 to 60 |
| | SETTLING TIME ON POWER-UP (S) | 30 | 30 | 30 | 30 |
| | MAX. OPERATING HUMIDITY RH (%) | (93 ± 3)% @ 40°C | (93 ± 3)% @ 40°C | (93 ± 3)% @ 40°C | (93 ± 3)% @ 40°C |
| | CURRENT ABSORPTION IN ALARM STATUS WITH BASES 43RBX000 AND 43RBX001 | 20 mA, 12-30 VDC | 20 mA, 12-30 VDC | 20 mA, 12-30 VDC | 20 mA, 12-30 VDC |
| | CURRENT ABSORPTION IN ALARM STATE WITH BASE TYPE 43RBX003 | 18 mA @ 9 VDC, 29 mA @ 12 VDC, 32 mA @ 15 VDC | 18 mA @ 9 VDC, 29 mA @ 12 VDC, 32 mA @ 15 VDC | 18 mA @ 9 VDC, 29 mA @ 12 VDC, 32 mA @ 15 VDC | 18 mA @ 9 VDC, 29 mA @ 12 VDC, 32 mA @ 15 VDC |
| | AVERAGE CURRENT CONSUMPTION IN INACTIVE STATE | <50 µA | <50 µA | <50 µA | <50 µA |
| | OPERATING VOLTAGE (VDC) | 9-30 (12-24 VDC rated) | 9-30 (12-24 VDC rated) | 9-30 (12-24 VDC rated) | 9-30 (12-24 VDC rated) |
| | OUTPUT IN ALARM STATE FOR REMOTE INDICATION | 20 mA/3.3 VDC | 20 mA/3.3 VDC | 20 mA/3.3 VDC | 20 mA/3.3 VDC |

CONVENTIONAL SYSTEM

**43RBX000**

BASE FOR CONVENTIONAL DETECTORS
The standard base for conventional detectors has a low-profile design and an extremely reliable sensor connection system that provides a secure fixing for the detector. Dimensions: ø 102 mm, h 11 mm.

**43RBX001**

BASE WITH DIODE FOR CONVENTIONAL DETECTORS
The standard base with diode for conventional detectors has a low-profile design and an extremely reliable sensor connection system that provides a secure fixing for the detector. The diode senses when the detector is removed from its base. Dimensions: ø 102 mm, h 11 mm. Weight: 42 g.

**43RBX003**

BASE WITH RELAY FOR CONVENTIONAL DETECTORS
The base with relay for conventional detectors has a low-profile design and an extremely reliable sensor connection system that provides a secure fixing for the detector. The base is equipped with a 12 Vdc relay for interfacing with security systems. It can also operate in reset mode. Dimensions: ø 102 mm, h 11 mm. Weight: 46 g.

**43RBX004**

BASE WITH DIODE FOR CONVENTIONAL DETECTORS 45 MA
Base with diode for conventional detectors with a low-profile design and an extremely reliable sensor connection system that provides a secure fixing for the detector. Compatible with fire alarm panels, where the current in alarm status is >=45 mA. The diode senses when the detector is removed from its base. Dimensions (ø x H): 102 x 11 mm. Weight: 42 g.

**43RBA002**

SPACER FOR CONVENTIONAL DETECTORS
The spacer enables the input of pipes for visible systems and the mounting of conventional and addressable sensors or sirens Art. 41SCB000, 41SAB000/IS, 48SAI020, 48SCI040, 48SCI060 on uneven surfaces, suspended ceilings, etc.

**48FPT000**

REMOTE LED INDICATOR
Remote indicator that repeats status of detectors. Compatible with sensors and bases that support this function. Operating voltage: 18 Vdc. Current absorption in active state: 30 mA. Cable cross section: 0.4 - 2.5 $mm^2$. Operating temperature -10°C / +60 C. Operating relative humidity: 93 (± 3)% @ 40°C. Dimensions: 85x85x20 mm. Weight: 42 g.

**43PAE020**

OUTDOOR CONVENTIONAL MANUAL CALL POINT - IP67
Manual call point with protection rating IP67, designed for use in conventional detection systems. The manual call point is equipped with a plastic recovery key (supplied) and, when it is activated by pressing the point indicated, it transmits an alarm signal to the panel. It has an LED at the front for indicating the alarm or test status. Resettable flexible element with special recovery key supplied. Wall mounting. Red ABS housing. Approved in compliance with EN54-11.
Note: the declared protection rating IP67 is only applicable if using IP67 rated cable guides.

**43PAM000**

CONVENTIONAL MANUAL CALL POINT
Manual call point with protection rating IP40, designed for use in conventional detection systems. The call point is equipped with a plastic recovery key (supplied) and, when it is activated by pressing the point indicated, it transmits an alarm signal to the panel. It has an LED at the front for indicating the alarm or test status. Resettable flexible element with special key. Wall mounting. Red ABS housing. Approved to EN54-11.

**43PAT000**

PLASTIC COVER FOR MANUAL CALL POINTS, SET OF 5 PIECES
Set consisting of 5 protective covers in transparent plastic material, for button models 41PAM000, 43PAM000, 43PAE020 and 41PAE020.

**43PAK000**

SPARE KEY FOR MANUAL CALL POINT
Spare key for manual call points art. 41PAM000, 43PAM000, 41PAE020 and 43PAE020.

## ADDRESSABLE PANELS

| | | | |
|---|---|---|---|
| | | ATENA EASY | ATENA |
| | ARTICLE CODE | **41CPE012** | **41CPE024EN** |
| | | ATENA EASY ADDRESSABLE FIRE PANEL | ATENA ADDRESSABLE PANEL WITH METAL CASE |
| SOFTWARE/ FIRMWARE SPECIFICATIONS | EVENT LOG NO. | 10,000 | 10,000 |
| | OPERATING MODE WITH/WITHOUT SUPERVISION (DAY/NIGHT) | Yes | Yes |
| | PROGRAMMING VIA PC | With AtenaProg software | With AtenaProg software |
| | LOCAL PROGRAMMING | Via menu on display and keypad | Via menu on touchscreen display |
| FUNCTIONS | PROGRAMMABLE LOGIC FUNCTIONS | | AND/OR logic |
| | SENSOR ADDRESSING WITH AUTO-ACQUISITION OF LOOP DEVICES | Yes | Yes |
| | SENSOR ADDRESSING WITH ELECTRONIC PROGRAMMER 41SPG000 | Yes | Yes |
| | SIREN ACTIVATION DELAY | 1 - 10 minutes | 1 - 10 minutes |
| | DETECTION WITH CONFIRMATION (DUAL ACTION) | Yes | Yes |
| | CONNECTIVITY | RS485, LAN (with accessory 41ECN000) | RS485, LAN |
| HARDWARE CHARACTERISTICS | DEDICATED INPUTS FOR INTERFAC. WITH EXTINGUISHING SYSTEMS | 3 | |
| | ZONE STATUS INDICATOR LEDs | 16 | 96 |
| | NUMBER OF LOOPS | 1 standard, expandable to 2 with expansion to one loop 41ECL022 | 1 standard, expandable to 4 with expansion to one loop 41ECL020 |
| | NUMBER OF DETECTION ZONES AVAILABLE | 48 | 96 |
| | MAX. NUMBER OF PANELS ON REDUNDANT RS485 NETWORK | 64 | 64 |
| | MAX. NUMBER OF DEVICES PER LOOP | 250 | 250 |
| | CONNECTION OVER ETHERNET | Yes | Yes |
| GENERAL DATA | IP PROTECTION RATING | IP30 | IP30 |
| | DIMENSIONS (W X H X D - mm) | 306x412x81 mm | 441x331x80 mm |
| | OPERATING TEMPERATURE (°C) | -10 to 50 | -10 to 50 |
| | MAX. OPERATING HUMIDITY RH (%) | (93 ± 3)% @ 40°C | (93 ± 3)% @ 40°C |
| | CERTIFICATION STANDARD | EN54-2, EN54-4 | EN54-2, EN54-4, LPCB |
| | ENCLOSURE | Metal | Metal |
| | DISPLAY | Alphanumeric LCD, 4 rows of 40 characters | Graphic touchscreen LCD, 320x240 pixel |
| | WEIGHT WITHOUT BATTERY (G) | 4200 | 6000 |
| TECHNICAL CHARACTERISTICS | ACTIVATION DELAY MANAGEMENT | Yes | Yes |
| | MAIN POWER SUPPLY | 230 VAC ±10% (0.3 A fuse) | 230 VAC ±10% (0.3 A fuse) |
| | ABSORPTION (A) | 0.065@230 VAC | 0.095@230 VAC |
| | BACKUP POWER SUPPLY (BATTERIES NOT SUPPLIED) | 1x 12 VDC, 18 Ah, 4.5 A fuse | 1x 12 VDC, 18 Ah, 4.5 A fuse |
| | POWER SUPPLY FOR EXTERNAL DEVICES (VDC) | 1 x 24 | 1x24 |
| | AUXILIARY DEVICES POWER SUPPLY OUTPUT | 1 (24 VDC/0.5 A) | 1 (24 VDC/0.3 A) |
| | PROGRAMMABLE RELAY OUTPUTS WITH FREE CONTACT (NO/NC) | 4 (15A@24 VDC) | 4 (250 VAC/10 A, 24 VDC/15 A) |
| | OUTPUTS FOR EXTINGUISHING SYSTEM CONTROL | 1 (24 VDC/0.3 A) | |
| | MONITORED OUTPUTS FOR SIRENS | 2 (24 VDC/0.5 A) | 1 (24 VDC/0.3 A) |

ADDRESSABLE SYSTEM

**41CPR000**

PANEL REPEATER
The repeater panel can receive all the signals from the system and execute all the commands, even in a location far away from the control panel that cannot be easily accessed by operators. Alphanumeric LCD display with 4 lines x 40 characters. Fire alarm, Fault, CPU Fault, Delayed Alarm, Exclusions, Test, Network Present, Alarm Silenced general indications. Direct commands for Silence buzzer, Silence siren, Reset, Evacuation, Signalling test. 4 menu navigation keys, ENTER key (Confirm), CANCEL key, keys 1,2,3,4 for setting the access code.

**41ECL020**

1 LOOP EXPANDER CARD FOR ATENA
Maximum number of devices that can be connected: 250. Maximum current absorption: 500 mA. Cable cross section: 0.4 - 2.5 mm2. Operating temperature -10°C / +65 C. Operating relative humidity: (93 ± 3)% @ 40°C. Dimensions: 75x80 mm. Weight: 30 g.

**41ECL022**

1 LOOP EXPANDER CARD FOR ATENA EASY
Maximum number of devices that can be connected: 250. Maximum current absorption: 500 mA. Cable cross section: 0.4-2.5 mm2. Operating temperature: -10°C - +65°C. Operating relative humidity: (93 ±3)%@40°C. Dimensions:(LxH): 75x80 mm. Weight: 30 g.

**41ECB000**

REDUNDANT BUS EXP. CARD FOR ATENA + ATENA EASY PANELS
This card can be used to create a redundant serial communication network between multiple ATENA, ATENA EASY panels and repeater panels 41CPR000 (up to a maximum of 64), thereby ensuring a backup line of connection in the event of a fault in the physical communication link. Maximum current absorption: 500 mA. Network type: redundant serial line. Maximum number of panels in network: 64. Maximum distance between two cards: 1000 m.

New

**41ECN000**

LAN EXPANSION FOR ATENA EASY
Art. 41ECN000 is a LAN communication module, designed to operate via serial communication with the ATENA EASY fire panel art. 41CPE012 (FW version 3.8.3 or higher). The module transmits incoming events to the ATENA MANAGER supervision software (version 1.11 or higher) via LAN. This module is installed directly inside the ATENA EASY case and is connected using the "flat" cable supplied with the module. The LAN module art. 41ECN000 is programmed using the ATENA PROG programming software (version 5.3.9 or higher).

New

**41PRN000**

PRINTER IN BOX FOR ATENA
Thermal printer for ATENA addressable panel, housed in a metal box with the same dimensions as the panel and designed for installation in modular structures. LED for status indication. RS232 serial interface for connection to Atena panel. Box dimensions (LxHxD): 430 x 330 x 117 mm, colour: grey.

New

**41ALM072**

POWER SUPPLY UNIT FOR ADDITIONAL 72 H STAND-BY, ATENA PANEL
Additional external power supply unit, designed to provide the addressable ATENA panel with extra power. IP30 rated metal enclosure. Maximum battery capacity 2x12 VDC/18 Ah. Continuous monitoring available by activating the "Monitor external power supply unit" option in the Atena panel menu. LED for displaying power supply unit and battery status. Approved to EN54-4.

**41CRA000**

5 PAIRS OF KEYS+LOCK, ATENA/ATENA EASY
Set of 5 pairs of keys plus 5 spare locks for Atena, Atena Easy panels, additional power supply unit 41ALM072 and printer 41PRN000.

## DEVICE PROGRAMMER

**41SPG000***

DEVICE PROGRAMMER FOR ADDRESSABLE PRODUCTS
The programmer 41SPG000 is the instrument used to assign addresses to all the devices connected in the loop (detectors, modules, manual call points and audible/visual alarms). It can read and write the addresses and to set the parameters of the detectors and modules. It is supplied with a 230 VAC, 50 Hz/ 1.5-12 VDC, 500 mA, 6 VA (max.) power supply unit and 2 cables for connection of the modules and manual call points. It can also be powered by 4 x 1.5 V AA batteries. The detectors and audible and visual alarm devices can be directly connected to the base on the upper part of the programmer. Dimensions: 255x102x65 mm. Weight: 260 g.

***41SPG000EN**: Same as 41SPG000, but supplied with UK Plug-Top PSU.

**41SWS000**

ATENA MANAGER SUPERVISION SOFTWARE
ATENA MANAGER is an application for PC for the supervision of systems with ATENA and ATENA EASY panels. ATENA MANAGER constantly monitors the status of the devices in the field and displays the data in the most common graph formats. In the event of fault or alarm conditions, these are displayed graphically on the screen accompanied by the relative audible signals. ATENA MANAGER enables system configurations to be imported directly from the database created with the software ATENA PROG. It can launch commands to silence buzzers, silence sirens, initiate evacuation and reset the panel.

## ADDRESSABLE DETECTORS

| | | | | |
|---|---|---|---|---|
| | ARTICLE CODE | 41RCS000 | 41RFU000 | 41RML000 |
| | | ADDRESSABLE HEAT DETECTOR WITH ISOLATOR | ADDRESSABLE OPTICAL SMOKE DETECTOR W/ ISOLATOR | ADDR.MULTI-C.SMOKE/HEAT DET.+ISOLATOR |
| SOFTWARE/ FIRMWARE SPECIFICATIONS | SENSITIVITY LEVEL SETTINGS | A1R/A2R/BS | High/Normal*/Medium/Low | High/Normal*/Medium/Low (optics) - A1R (thermal) |
| FUNCTIONS | LED INDICATORS | 2, 360° visibility | 2, 360° visibility | 2, 360° visibility |
| HARDWARE CHARACTERISTICS | IP PROTECTION RATING | IP30 | IP30 | IP30 |
| GENERAL DATA | DETECTOR CLASS (IN ACCORDANCE WITH A EN54-5) | A1/R, A2/S, B/S | | A1/R |
| | COLOUR | White | White | White |
| | DIMENSIONS (ØXH - mm - BASE INCLUDED) | 103x42 | 103x42 | 103x49 |
| | WEIGHT (G) | 110 | 125 | 125 |
| | CABLE CROSS-SECTION ($mm^2$) | 0.4- 2.5 | 0.4- 2.5 | 0.4- 2.5 |
| | ISOLATOR | Yes | Yes | Yes |
| | CERTIFICATION STANDARD | EN54-5, EN54-17 | EN54-7, EN54-17 | EN54-5, EN54-7, EN54-17 |
| | TYPE OF DETECTION POINT | Heat detector / rate of rise detector | Optical smoke detector | Multi-criteria smoke/heat detector + rate of rise detector |
| TECHNICAL CHARACTERISTICS | OPERATING TEMPERATURE (°C) | -10 to 60 | -10 to 60 | -10 to 60 |
| | SETTLING TIME ON POWER-UP (S) | 30 | 30 | 30 |
| | MAX. OPERATING HUMIDITY RH (%) | (93 ± 3)% @ 40°C | (93 ± 3)% @ 40°C | (93 ± 3)% @ 40°C |
| ELECTRICAL SPECIFICATIONS | RATED CURRENT ABSORPTION (STANDBY) | <170 uA@27 VDC | <190 µA@27 VDC | <190 µA@27 VDC |
| | ABSORPTION IN ALARM (MA) | 6.5 mA | 6.5 mA | 6.5 mA |
| | CURRENT CONSUMPTION IN COMMUNICATION | <290 µA@27 VDC | <310 uA@27 VDC | <310 uA@27 VDC |
| | OPERATING VOLTAGE | 15-32 (27 VDC rated) | 15-32 (27 VDC rated) | 15-32 (27 VDC rated) |
| | OUTPUT IN ALARM STATE FOR REMOTE INDICATION | 7.5 mA@7.5 VDC | 7.5 mA@7.5 VDC | 7.5 mA@7.5 VDC |

**41PAM000**

### ADDRESSABLE MANUAL CALL POINT
Addressable manual call point with built-in isolator. The button is equipped with a resettable special plastic key element (supplied) and sends an alarm signal to the panel when it is activated by pressing the indicated point. It is equipped with an LED for signalling the alarm or test status. Wall mounting. Red ABS housing. Approved to **EN 54-11** and **EN 54-17**.

**41PAE020**

### OUTDOOR ADDRESSABLE MANUAL CALL POINT - IP67
Manual call point with protection rating IP67, designed for use in addressable detection systems. The manual call point is equipped with a plastic recovery key (supplied); when it is activated by pressing the point indicated, it transmits an alarm signal to the panel. It has an LED at the front for indicating the alarm or test status. Resettable flexible element with special recovery key. Wall mounting. Red ABS housing. Approved in compliance with **EN54-11** and **54-17**.
Note: the declared protection rating IP67 is only applicable if using IP67 rated cable guides.

**43PAT000**

### PLASTIC COVER FOR MANUAL CALL POINTS, SET OF 5 PIECES
Set consisting of 5 protective covers in transparent plastic material, for button models 41PAM000, 43PAM000, 43PAE020 and 41PAE020.

**43PAK000**

### SPARE KEY FOR MANUAL CALL POINT
Spare key for manual call points art. 41PAM000, 43PAM000, 41PAE020 and 43PAE020.

**41RBX020**

### BASE FOR ADDRESSABLE DETECTORS
The standard base for addressable detectors has a low-profile design and an extremely reliable sensor connection system that provides a secure fixing for the detector. Maximum cable cross-section: 3.0 $mm^2$. Operating temperature -10°C / +60 C. Operating relative humidity: (93 ± 3)% @ 40°C. Dimensions: 103x14.7 mm. Weight: 15 g.

**43RBA002**

### SPACER FOR ADDRESSABLE DETECTORS
The spacer enables the input of pipes for visible systems and the mounting of conventional and addressable sensors or sirens Art. 41SCB000, 41SAB000/IS, 48SAI020, 48SCI040, 48SCI060 on uneven surfaces, suspended ceilings, etc.



**48FPT000**

### REMOTE LED INDICATOR
Remote indicator that repeats status of detectors. Compatible with sensors and bases that support this function.
Operating voltage: 18 Vdc. Current absorption in active state: 30 mA. Cable cross section: 0.4 - 2.5 $mm^2$. Operating temperature -10°C / +60 C. Operating relative humidity: 93 (± 3)% @ 40°C. Dimensions: 85x85x20 mm. Weight: 42 g.

ADDRESSABLE SYSTEM

## VISUAL AND AUDIBLE DEVICES

| | | | | New | |
|---|---|---|---|---|---|
| | ARTICLE CODE | 41SCI000 | 41SAI000 | 41SCB000 | 41SAB000/IS |
| | | ADDRESSABLE INDOOR SIREN W/ STROBE FOR CONN. TO LOOP | ADDRESSABLE INDOOR SIREN FOR CONNECTION TO LOOP | ADDRESSABLE BASE WITH SIREN AND STROBE | BASE WITH SIREN FOR CONNECTION TO LOOP |
| HARDWARE CHARACTERISTICS | IP PROTECTION RATING | IP43C | IP43C | IP21C | IP21C |
| | FINISH TYPE | SAN | ABS | SAN | ABS |
| | NUMBER OF TONES AVAILABLE | 32 | 32 | 32 | 32 |
| | MAXIMUM NO. OF SIRENS ON LOOP, HIGH VOLUME (TONE 27) | 20 (Strobe active) | 30 | | 30 |
| | MAXIMUM NO. OF SIRENS ON LOOP, LOW VOLUME (TONE 27) | 30 (Strobe active) | 60 | | 100 |
| GENERAL DATA | COLOUR | Transparent red | Red | White | White |
| | DIMENSIONS (mm) | 116 (ø) x 55 (H) | 116 (ø) x 55 (H) | 102 (ø) x 32 (H) | 102 (ø) x 32 (H) |
| | WEIGHT (G) | 183 | 183 | 127 | 130 |
| | EFFECTIVE CABLE CROSS-SECTION ($mm^2$) | 0.4 - 2.5 | 0.4 - 2.5 | 0.4 - 2 | 0.4 - 2.5 |
| | CERTIFICATION STANDARD | EN54-3, EN54-17, EN54-23 | EN54-3, EN54-17 | EN54-3 *audible part only | EN54-3 |
| | VISUAL SIGNAL | Yes | | Yes | |
| | VISUAL INDICATION COLOUR | White | | White | |
| | OPTICAL SIGNAL COVERAGE IN ACCORDANCE WITH EN54-23 | (W) 2.4 x 6 m | | | |
| TECHNICAL CHARACTERISTICS | MAX. OPERATING HUMIDITY RH (%) | (93 ± 3)@40°C | (93 ± 3)@40°C | (93 ± 3)@40°C | (93 ± 3)@40°C |
| | OPERATING TEMPERATURE (°C) | -10 to 50 | -10 to 50 | -10 to 60 | -10 to 60 |
| ELECTRICAL SPECIFICATIONS | ABSORPTION WITH ISOLATOR ACTIVE | <15 mA | <15 mA | | |
| | RATED CURRENT ABSORPTION (STANDBY) | 500 uA/27 VDC | 500 uA/27 VDC | 470 uA/27 VDC | 470 uA/27 VDC |
| | POWER SUPPLY VOLTAGE (VDC) | 15-32 (27 VDC rated) | 15-32 (27 VDC rated) | 15-32 (27 VDC rated) | 15-32 (27 Vdc rated) |
| | MAX. ABS. (OTHER TONES) HIGH VOLUME (WITH AUDIO AND STROBE ACTIVE) | < 16.5 mA | < 16.5 mA | | |
| | MAX. ABS. (OTHER TONES) HIGH VOLUME (WITH ONLY AUDIO ACTIVE) | < 10 mA | < 10 mA | | |
| | MAX. ABS. (OTHER TONES) LOW VOLUME (WITH AUDIO AND STROBE ACTIVE) | < 11 mA | < 11 mA | | |
| | MAX. ABS. (OTHER TONES) LOW VOLUME (WITH ONLY AUDIO ACTIVE) | < 4 mA | < 4 mA | | |
| | MAX. ABS. MAIN TONE 27 HIGH VOLUME WITH AUDIO AND STROBE ACTIVE | <22 mA | <22 mA | 10 mA | |
| | MAX. ABS. MAIN TONE 27 HIGH VOLUME WITH ONLY AUDIO ACTIVE | < 16.5 mA | < 16.5 mA | | < 9.8 mA |
| | MAX. ABS. MAIN TONE 27 LOW VOLUME WITH AUDIO + STROBE ACTIVE | <12 mA | <12 mA | | |
| | MAX. ABS. MAIN TONE 27 LOW VOLUME WITH ONLY AUDIO ACTIVE | <5 mA | | | < 2.8 mA |
| | MAX. ABS. MAIN TONE 27 LOW VOLUME | | <5 mA | | |
| | SOUND POWER LEVEL (OTHER TONES) HIGH VOLUME (DB@1 M) | 80-95 dB±3 dB@1 m | 80-95 dB±3 dB@1 m | 90-100 dB±3 dB@1 m | 90-100 dB±3 dB@1 m |
| | SOUND POWER (OTHER TONES) LOW VOLUME (DB@1 M) | 75-85 dB±3 dB@1 m | 75-85 dB±3 dB@1 m | 82-92 dB±3 dB@1 m | 82-92 dB±3 dB@1 m |
| | SOUND POWER (MAIN TONE 27) HIGH VOLUME (DB@1 M) | 92 dB±5 dB@1 m | 92 dB±5 dB@1 m | 88 dB±3 dB | 96 dB±3 dB |
| | SOUND POWER (MAIN TONE 27) LOW VOLUME (DB@1 M) | 80 dB±6 dB@1 m | 80 dB±6 dB@1 m | 96 dB±3 dB | 92 dB±3 dB |

**41SAC000**

COVER FOR BASES 41SAB000/IS-41SCB000 (5 PCS)
5 plastic covers for art. 41SAB000, 41SAB000/IS and 41SCB000.

**41BSE000**

BASE FOR ADDRESSABLE SIRENS - IP65
Base with IP65 protection rating for addressable sirens 41SAI000 and 41SCI000. Cable glands included.

**48PIN001EN**

BOARD SIGN IN TRANSPARENT PLEXIGLASS
Board sign in transparent Plexiglass, with space dedicated to addressable siren 41SCI000, or conventional sirens 48SCI040/48SCI060, includes the adhesive label "FIRE ALARM".

**48LBL001** ADHESIVE LABEL "GAS ALARM" FOR BOARD SIGN 48PIN001EN
**48LBL002** ADHESIVE LABEL "EVACUATE IMMEDIATELY" FOR BOARD SIGN 48PIN001EN
**48LBL003** ADHESIVE LABEL "DO NOT ENTER GAS RELEASED" FOR BOARD SIGN 48PIN001EN

## ADDRESSABLE MODULES

| | | | | | |
|---|---|---|---|---|---|
| | | | New | | |
| | ARTICLE CODE | 41IOM000 | 41IOM122 | 41IOM022 | 41IOM040 |
| | | ADDRESSABLE MODULE WITH 1 MONITORED OUTPUT | ADDRESSABLE MODULE WITH 2 MONITORED INPUTS AND 2 MONITORED OR RELAY OUTPUTS | ADDRESSABLE MODULE WITH 2 MONITORED INPUTS + 2 RELAY OUTPUTS | ADDRESSABLE MODULE WITH FOUR MONITORED INPUTS |
| HARDWARE CHARACTERISTICS | IP PROTECTION RATING | IP40 | IP40 | IP40 | IP40 |
| | PLASTIC | ABS | ABS | ABS | ABS |
| | NUMBER OF MONITORED INPUTS | | 2 | 2 | 4 |
| | NUMBER OF RELAY OUTPUTS | 1 monitored | 2 (0 monitored) | 2 | |
| GENERAL DATA | COLOUR | Grey, transparent cover | Grey, transparent cover | Grey, transparent cover | Grey, transparent cover |
| | DIMENSIONS LXHXD (mm) | 142x80x45 | 142x80x45 | 142x80x45 | 142x80x45 |
| | WEIGHT (G) | 230 | 180 | 230 | 230 |
| | CABLE CROSS-SECTION ($mm^2$) | 0.4 to 2.5 | 0.4 to 2.5 | 0.4 to 2.5 | 0.4 to 2.5 |
| | CERTIFICATION STANDARD | EN54-17, EN54-18 | EN54-17, EN54-18 | EN54-18 | EN54-17, EN54-18 |
| TECHNICAL CHARACTERISTICS | OPERATING TEMPERATURE (°C) | -10 to 60 | -10 to 60 | -10 to 60 | -10 to 60 |
| | MAX. OPERATING HUMIDITY RH (%) | (93 ± 3)% @ 40°C | (93 ± 3)% @ 40°C | (93 ± 3)% @ 40°C | (93 ± 3)% @ 40°C |
| ELECTRICAL SPECIFICATIONS | ABSORPTION WITH 1 LED ON (MA) | 3.6 | | 3.5 | 4 |
| | ABSORPTION IN STANDBY (MA) | 270 uA@27 VDC | | 235 uA@27 VDC | 270 uA@27 VDC |
| | RATED POWER ABSORPTION | 270 uA@27 VDC | | 260 uA@27 VDC | 330 uA@27 VDC |
| | OUTPUT/S MAXIMUM CURRENT | 0.75 A@28 VDC/0.5 A@120 VAC | 2 A@30 VDC/0.5 A@125 VAC | 1 A@30 VDC/0.5 A@125 VAC | |
| | POWER SUPPLY VOLTAGE | 15-32 VDC | 15-32 VDC | 15-32 VDC | 15-32 VDC |
| | ISOLATOR | Yes | Yes | Yes | Yes |
| | RATED ABSORPTION (RELAY OUTPUTS SELECTED) | | <0.87 mA@27 VDC | | |
| | ABSORPTION WITH 1 LED ON (RELAY OUTPUTS SELECTED) | | 3.9 mA | | |
| | ABSORPTION WITH 2 LEDS ON (RELAY OUTPUTS SELECTED) | | 7.2 mA | | |
| | RATED ABSORPTION (MONITORED OUTPUTS SELECTED) | | <1.03 mA@27 VDC | | |
| | ABSORPTION WITH 1 LED ON (MONITORED OUTPUTS SELECTED) | | 4.15 mA | | |
| | ABSORPTION WITH 2 LEDS ON (MONITORED OUTPUTS SELECTED) | | 7.2 mA | | |

## ADDRESSABLE MODULES

| | | | | | | |
|---|---|---|---|---|---|---|
| | | | | New | | |
| | ARTICLE CODE | 41IOM004 | 41ISC000 | 41IOM000/240 | 41IOM010 | 41ISL000 |
| | | ADDRESSABLE MODULE WITH FOUR RELAY OUTPUTS | ADDRESSABLE MODULE FOR CONVENTIONAL ZONE | ADDRESSABLE MODULE 1 RELAY OUTPUT 240 VAC | ADDRESSABLE MINI MODULE 1 MONITORED INPUT | SHORT-CIRCUIT ISOLATOR |
| HARDWARE CHARACTERISTICS | IP PROTECTION RATING | IP40 | IP40 | IP40 | IP21C | IP40 |
| | PLASTIC | ABS | ABS | ABS | | ABS |
| | NUMBER OF RELAY OUTPUTS | 4 | | 1 | | |
| GENERAL DATA | COLOUR | Grey, transparent cover | Grey, transparent cover | Grey, transparent cover | | White |
| | DIMENSIONS LXHXD (mm) | 142x80x45 | 142x80x45 | 142x80x45 | 43x25 | 71X71x40 mm |
| | WEIGHT (G) | 230 | 230 | 230 | 12 | 185 |
| | MAXIMUM ISOLATOR RESISTANCE | | | | | 0.18 27 VDC 0.25 15 VDC |
| | CABLE CROSS-SECTION ($mm^2$) | 0.4 to 2.5 | 0.4 to 2.5 | 0.4 to 2.5 | 2.5 | 0.4 to 2 |
| | CERTIFICATION STANDARD | EN54-17, EN54-18 | EN54-18 | EN54-17, EN54-18 | | EN54-17 |
| TECHNICAL CHARACTERISTICS | OPERATING TEMPERATURE (°C) | -10 to 60 | -10 to 60 | -10 to 60 | -10 to 60 | -10 to 60 |
| | MAX. OPERATING HUMIDITY RH (%) | (93 ± 3)% @ 40°C | (93 ± 3)% @ 40°C | (93 ± 3)% @ 40°C | (93 ± 3)% @ 40°C | (93 ± 3)% @ 40°C |
| ELECTRICAL SPECIFICATIONS | ABSORPTION WITH 1 LED ON (MA) | 4 | 3 | 4 | | 3 |
| | ABSORPTION IN STANDBY (MA) | 175 uA@27 VDC | 5.5 mA@27 VDC | 175 uA@27 VDC | | |
| | ABSORPTION IN SHORT-CIRCUIT | | | | | 16 |
| | RATED POWER ABSORPTION | 220 µA@27 VDC | | 220 µA@27 VDC | 100 uA@27 VDC | 200 uA@27 VDC |
| | OUTPUT/S MAXIMUM CURRENT | 1 A@30 VDC/0.5 A@125 VAC | | 5 A@30 VDC/5 A@250 VAC | | |
| | POWER SUPPLY VOLTAGE | 15-32 VDC | 15-32 VDC | 15-32 VDC | 15-32 VDC | 15-32 VDC |
| | ISOLATOR | Yes | Yes | Yes | | Yes |

**Note**: All inputs can be programmed with the Panic and Gas function managed by systems such as a bathroom pull-cord or relay Gas detectors.

## COMMON ACCESSORIES

GUIDE TO FIRE DETECTION

**ADDRESSABLE SYSTEM**

### BEAM DETECTORS

| | | | | |
|---|---|---|---|---|
| | ARTICLE CODE | 48BFC000 | 48BFC002 | 48BFC003 |
| | | BEAM SMOKE DETECTOR WITH REFLECTOR, 3-30 M | BEAM SMOKE DETECTOR WITH REFLECTOR 5-50 M | BEAM SMOKE DETECTOR WITH REFLECTOR 50-100 M |
| FUNCTIONS | LED INDICATORS | 1 | 1 | 1 |
| HARDWARE CHARACTERISTICS | IP PROTECTION RATING | IP41 | | |
| | FINISH TYPE | ABS | ABS | ABS |
| GENERAL DATA | COLOUR | White | White | White |
| | DIMENSIONS (W X H X D - mm) | 115x115x78 | 128x80x84 | 128x80x84 |
| | WEIGHT (G) | 700 | 350 | 350 |
| | CABLE CROSS-SECTION ($mm^2$) | 0.5 to 1.5 | 0.5 to 1.5 | 0.5 to 1.5 |
| | CERTIFICATION STANDARD | EN54-12 | EN54-12 | EN54-12 |
| | AREA | | 130x150 mm | |
| OPTICAL CHARACTERISTICS | WAVELENGTH (NM) | 940 | | |
| | DISTANCE (M) | 3 - 30 | 5 - 50 | 50 - 100 |
| | MAX. ANGULAR MISALIGNMENT OF THE OPTICAL PART (±, °) | 0.35 | 0.5 | 0.5 |
| | MAX.ANGULAR MISALIGNMENT OF THE REFLECTOR (±, °) | 5 | 5 | 5 |
| | MAX.ANGULAR MOVEMENT OF THE OPTICAL PART (±, °) | 1.8 | | |
| | FAULT THRESHOLD (%) | 92 | | |
| TECHNICAL CHARACTERISTICS | OPERATING TEMPERATURE (°C) | -10 to 55 | -25 to 55 | -25 to 55 |
| | MAX. OPERATING HUMIDITY RH (%) | (95)% @ 40°C | (95)% @ 40°C | (95)% @ 40°C |
| | MAIN POWER SUPPLY (VDC) | 13 to 28 | 13 to 28 | 13 to 28 |
| | STANDBY CURRENT (@24 VDC - MA) | 2.8 | 8 to 30 | 8 to 30 |
| | CURRENT IN ALARM STATUS (@24 VDC - MA) | 12 | 20 to 100 | 20 to 100 |

**48BFA003**

FLUSH MOUNTING BOX FOR 48BFC000
Accessory for flush mounting of barrier 48BFC000.



**48BFA004**

SPARE REFLECTOR FOR 48BFC002
Spare reflector for linear smoke detector 48BFC002.

**48BFA005**

ALARM TEST TOOL FOR 48BFC002
Alarm test tool for 48BFC002 and 48BFC003; a filter for ALARM simulation and for checking that the fire beam are calibrated correctly.

**48BFA006**

SPARE REFLECTOR FOR 48BFC003
Spare reflector for smoke detector 48BFC003.

## VISUAL AND AUDIBLE WARNING DEVICES

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | ARTICLE CODE | 48CLU003+48CLU006 | 48SAI020 | 48SCI040 | 48SCI060 | 48LMI000 | 48SCI000 | 48LMI020 |
| | | ALARM WARNING SIGN WITH HIGH-EFFICIENCY LED | INDOOR SIREN WITH 32 TONES | SIREN WITH RED STROBE | SIREN WITH WHITE STROBE | CEILING-MOUNTED WHITE STROBE - IP21 | CEILING-MOUNTED SIREN AND WHITE STROBE - IP21 | WALL-MOUNTED WHITE STROBE - IP21 |
| MAIN FEATURES | FREQUENCY BAND | | | | | | 400-2900 Hz | |
| HARDWARE CHARACTERISTICS | IP PROTECTION RATING | IP21C | IP21C | IP21C | IP21C | IP21 | IP21 | IP21 |
| | FINISH TYPE | ABS - V0 + Polycarbonate | ABS | SAN | SAN | High-resistance polycarbonate | High-resistance polycarbonate | High-resistance polycarbonate |
| | NUMBER OF TONES AVAILABLE | 16 | 32 | 32 | 32 | | 32 | |
| | COVER | | | | | (C) 3x15 m | (C) 3x15 m | |
| GENERAL DATA | COLOUR | White | Red | Transparent red | Transparent white | Red | Red | Red |
| | DIMENSIONS (mm) | 275 x 135 x 50 | 102 (ø) x 32 (H) | 102 (ø) x 32 (H) | 102 (ø) x 32 (H) | 100 (ø) x 94 (H) | 100 (ø) x 94 (H) | 100 (ø) x 100 (H) |
| | WEIGHT (G) | | 248 | 248 | 248 | | | |
| | EFFECTIVE CABLE CROSS-SECTION ($mm^2$) | 0.4 to 2.5 | 0.2 to 1.5 | 0.4 to 1.5 | 0.2 to 1.5 | | | |
| | CERTIFICATION STANDARD | EN54-3, EN54-23 | EN54-3 | EN54-3 *audible part only | EN54-3, EN54-23 | EN54-23, LPCB | EN54-3, EN54-23, LPCB | EN54-23, LPCB |
| | VISUAL SIGNAL | Yes | | Yes | Yes | Yes | Yes | Yes |
| | VISUAL INDICATION COLOUR | Red | | Red | White | White | White | White |
| | LOW LEVEL AUDIBLE INDICATION (DB@1 M) | 71 | 94 | 94 | 94 | | 94 | |
| | HIGH LEVEL AUDIBLE INDICATION (DB@1 M) | 91 | 102 | 102 | 102 | | | |
| TECHNICAL CHARACTERISTICS | OPTICAL SIGNAL COVERAGE IN ACCORDANCE WITH EN54-23 | (W) 3.6 x 9 m | | | (O) 2.3 / 1.5 / 0.75 | (C) 3 x 15 m | (C) 3 x 15 m | (W) 3.1 x 11.3 m |
| | MAX. OPERATING HUMIDITY RH (%) | | (93 ± 3)@40°C | (93 ± 3)@40°C | (93 ± 3)@40°C | < 95 | < 95 | < 95 |
| | OPERATING TEMPERATURE (°C) | -10 to 55 | -10 to 60 | -10 to 60 | -10 to 60 | -25 to 70 | -10 to 55 | -25 to 70 |
| ELECTRICAL SPECIFICATIONS | FLASHING FREQUENCY (HZ) | | | 1 | 1 | 1 | 1 | 1 |
| | POWER SUPPLY VOLTAGE (VDC) | 19 to 30 | 20 to 28 | 20 to 28 | 20 to 28 | 17 to 60 | 17 to 60 | 17 to 60 |
| | MAX. ABS. (OTHER TONES) HIGH VOLUME (WITH AUDIO AND STROBE ACTIVE) | | | | 25 mA | 20@0.5 Hz, 40@1 Hz (@24 VDC, strobe only) | | |
| | MAX. ABS. (OTHER TONES) HIGH VOLUME (WITH ONLY AUDIO ACTIVE) | | | | 22 mA | | | |
| | MAX. ABS. (OTHER TONES) LOW VOLUME (WITH AUDIO AND STROBE ACTIVE) | | | | 12 mA | | | |
| | MAX. ABS. (OTHER TONES) LOW VOLUME (WITH ONLY AUDIO ACTIVE) | | | | 8.5 mA | | | |
| | MAX. ABS. (MA - OPTICAL PART/AUDIBLE PART) | 61 | | | | 20@0.5 Hz, 40@1 Hz (@24 VDC, strobe only) | 25@0.5 Hz, 45@1 Hz | 20@0.5 Hz, 40@1 Hz (@24 VDC, strobe only) |
| | MAX. ABS. MAIN TONE 27 HIGH VOLUME WITH ONLY AUDIO ACTIVE | | 22 mA@24 VDC | | | | | |
| | MAX. ABS. MAIN TONE 27 HIGH VOLUME | | 22 mA@24 VDC | | | | | |
| | MAX. ABS. MAIN TONE 27 LOW VOLUME | | 8.5 mA@24 VDC | | | | | |
| | SOUND POWER LEVEL (OTHER TONES) HIGH VOLUME (DB@1 M) | | 90-102 dB | 83-102 dB | 85-104 dB | | | |
| | SOUND POWER (MAIN TONE 27) HIGH VOLUME (DB@1 M) | | 102 dB | 92-101 dB | 95-104 dB | | | |

**48CLU006** Interchangeable "FIRE ALARM" text for visual/audible sign 48CLU003.
**48CLU007** Interchangeable "EVACUATE IMMEDIATELY" text for optical/audible sign 48CLU003.
**48CLU008** Interchangeable "DO NOT ENTER GAS RELEASED" text for optical/audible sign 48CLU003.

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | | | | | | | |
| **48SCI020** | **48LME000** | **48SCE000** | **48LME020** | **48SCE020** | **48CME000** | **48CMI000** | **48SAE000** |
| **WALL-MOUNTED SIREN AND WHITE STROBE - IP21** | **CEILING-MOUNTED WHITE STROBE - IP65** | **CEILING-MOUNTED SIREN AND WHITE STROBE - IP65** | **WALL-MOUNTED WHITE STROBE - IP65** | **WALL-MOUNTED SIREN AND WHITE STROBE - IP65** | **6" OUTDOOR BELL - IP55** | **6" INDOOR BELL - IP33C** | **ELECTRONIC SIREN - IP66** |
| 400-2900 Hz | | 400-2900 Hz | | 400-2900 Hz | | | |
| IP21 | IP65 | IP65 | IP65 | IP65 | IP55 | IP33C | IP66 with fixing backplate art. 48SAE001 |
| High-resistance polycar-bonate | High-resistance polycar-bonate | High-resistance polycar-bonate | High-resistance polycar-bonate | High-resistance polycar-bonate | Aluminium | Aluminium | ABS |
| 32 | | 32 | | 32 | 1 | 1 | 32 |
| | (C) 3x15 m | (C) 3x15 m | | | | | |
| Red | Red | Red | Red | Red | Red | Red | Red |
| 100 (ø) x 100 (H) | 97.5 (ø) x 117 (H) | 97.5 (ø) x 117 (H) | 97.5 (ø) x 122 (H) | 97.5 (ø) x 122 (H) | 150 (ø) x 64 (H) | 150 (ø) x 53 (H) | 95 (ø) x 92 (H) |
| | | | | | 780 | 410 | |
| | | | | | 0.4 to 2.5 | 0.4 to 2.5 | 0.28 to 2.5 |
| EN54-3, EN54-23, LPCB | EN54-23, LPCB | EN54-3, EN54-23, LPCB | EN54-23, LPCB | EN54-3, EN54-23, LPCB | EN54-3 | EN54-3 | EN54-3 |
| Yes | Yes | Yes | Yes | Yes | | | |
| White | White | White | White | White | | | |
| 94 | | 94 | | 94 | 94 | 94 | 94 |
| | | | | | | | |
| (W) 3.1 x 11.3 m | (C) 3 x 15 m | (C) 3 x 15 m | (W) 3.1 x 11.3 m | (W) 3.1 x 11.3 m | | | |
| < 95 | < 95 | < 95 | < 95 | < 95 | 45 to 85 | | |
| -10 to 55 | -25 to 70 | -10 to 55 | -25 to 70 | -10 to 55 | -10 to 50 | -10 to 50 | -25 to 70 |
| 1 | 1 | 1 | 1 | 1 | | | |
| 17 to 60 | 17 to 60 | 17 to 60 | 17 to 60 | 17 to 60 | 20.4 to 27.6 | 24 | 9 to 30 |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| 25@0.5 Hz, 45@1 Hz | 20@0.5 Hz, 40@1 Hz (@24 VDC, strobe only) | 25@0.5 Hz, 45@1 Hz | 20@0.5 Hz, 40@1 Hz (@24 VDC, strobe only) | 25@0.5 Hz, 45@1 Hz | 12 (audible part only) | 11 (audible part only) | 39 |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | 97 dB | | 97 dB | 100+5 dB | 95 dB | |
| | | | | | | | |

**48SAE001**

BACKPLATE FOR SIREN 48SAE000, IP66 MOUNTING
Mounting backplate for the siren 48SAE000 with IP66 protection rating.

## MAGNETIC DOOR HOLDERS

**48FME051**

### 50 KG MAGNETIC DOOR HOLDER
Electromagnet with 50 kg holding force for fire doors. Can be wall or floor mounted, with optional backplate (art. 48FMA03). Automatic release in the event of fire. Manual release button included. Connection terminals, equipped with diode for protection against inverse polarity and current limiting resistor. Quick-fix keeper plate. Nickel-plated steel body for maximum corrosion resistance. Fibreglass-reinforced thermoplastic base. Power supply 24 VDC. Absorption 50 mA. Low current absorption mode. **Approved to EN 1155.**

**48FME052**

### 50 KG MAGNETIC DOOR HOLDER - 15 CM WALL/FLOOR BRACKET
Electromagnet with 50 kg holding force for fire doors. For wall-mounted or floor installation. Automatic release in the event of fire. Manual release button included. Connection terminals, equipped with diode for protection against inverse polarity and current limiting resistor. Quick-fix keeper plate. Nickel-plated steel body for maximum corrosion resistance. Fibreglass-reinforced thermoplastic base. Power supply 24 VDC. Absorption 50 mA. Low current absorption mode. 15 cm wall or floor backplate. **Approved to EN 1155.**

**48FME053**

### 50 KG MAGNETIC DOOR HOLDER - 30 CM WALL/FLOOR BRACKET
Electromagnet with 50 kg holding force for fire doors. For wall-mounted or floor installation. Automatic release in the event of fire. Manual release button included. Connection terminals, equipped with diode for protection against inverse polarity and current limiting resistor. Quick-fix keeper plate. Nickel-plated steel body for maximum corrosion resistance. Fibreglass-reinforced thermoplastic base. Power supply 24 VDC. Absorption 50 mA. Low current absorption mode. 30 cm wall or floor backplate. **Approved to EN 1155.**

**48FME101**

### 100 KG ELECTROMAGNET
Electromagnet with 100 kg holding force for fire doors. Can be wall or floor mounted, with optional backplate (art. 48FMA03). Automatic release in the event of fire. Manual release button included. Connection terminals, equipped with diode for protection against inverse polarity and current limiting resistor. Quick-fix keeper plate. Nickel-plated steel body for maximum corrosion resistance. Fibreglass-reinforced thermoplastic base. Power supply 24 VDC. Absorption 100 mA. Low current absorption mode. **Approved to EN 1155.**

**48FMA01**

### ALUMINIUM COVER FOR 48FME051
Aluminium cover for electromagnetic door stop 48FME051

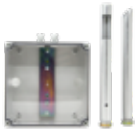
**48FMA02**

### ALUMINIUM COVER FOR 48FME101
Aluminium cover for electromagnetic door stop 48FME101

**48FMA03**

### FLOOR BRACKET FOR 48FME051 AND 48FME101
Aluminium backplate for floor mounting of electromagnetic door stops 48FME051 and 48FME101.

## SPECIAL DETECTORS



**48CAC001**

### DUCT DETECTOR
Test chamber designed to house an analogue or conventional detector for the testing of ventilation ducts; uses the Pitot tube principle to continuously sample air circulating through the duct and analyse it using the smoke detector housed in the chamber. Positioned inside the duct, the test chamber has an air inlet pipe and an outlet pipe; inside the test chamber the detector analyses the sampled air. To be used in conjunction with a base and an analogue or conventional smoke detector.

**48CTR068**

### LINEAR THERMAL CABLE, NOT RESETTABLE 68°C
Linear thermal cable, not resettable 68°C; at the nominal temperature the insulation melts, causing a short circuit between the 2 wires and generating an alarm signal. Ideal for installation in hazardous areas or where access is difficult, it can be connected to conventional Comelit fire alarm panels or, if used in conjunction with addressable module 41ISC000, to addressable Comelit panels. **Take extra care with packaging and transportation, to prevent the cable from reaching its maximum storage temperature (40°C).**

**48CTR105**

### LINEAR THERMAL CABLE, NOT RESETTABLE 105°C
Linear thermal cable, not resettable 105°C; at the nominal temperature the insulation melts, causing a short circuit between the 2 wires and generating an alarm signal. Ideal for installation in hazardous areas or where access is difficult, it can be connected to conventional Comelit fire alarm panels or, if used in conjunction with addressable module 41ISC000, to addressable Comelit panels. **Take extra care with packaging and transportation, to prevent the cable from reaching its maximum storage temperature (40°C).**

## ACCESSORIES

**48CVI115**

FIRE CABLE EN50200 CEI20-105 PH30 2X1.5 100 M
PH30 red fire-resistant cable for fire alarm systems, length 100 m, cross-section 2 x 1.5 mm2. **Approved to EN50200 CEI20-105.**

**48CVI125**

FIRE CABLE EN50200 CEI20-105 PH30 2X2.5 100 M
PH30 red fire-resistant cable for fire alarm systems, length 100 m, cross-section 2 x 2.5 mm2. **Approved to EN50200 CEI20-106.**

New

**ZSP100-2.5A-18**

ADDITIONAL POWER SUPPLY UNIT 2.5 A
Power supply unit designed to provide auxiliary power. IP44 rated metal enclosure. Total available current: 2.5 A. Maximum recommended capacity for battery housing (with connection in series) 2 x 12 V / 18 Ah. Power supply voltage: 230 VAC. Rated output voltage: 27.5 VDC (with batteries not connected). Dimensions (WxHxD): 395 x 356 x 96 mm. The power supply unit is equipped with 2 outputs with volt-free relays for the signals required by EN54-4. **Approved to EN54-4 and EN12101-10.**

New

**ZSP100-5.5A-18**

ADDITIONAL POWER SUPPLY UNIT 5.5 A
Power supply unit designed to provide auxiliary power. IP44 rated metal enclosure.
Total available current: 5.5A. Maximum recommended capacity for battery housing (with connection in series) 2 x 12V 18Ah. Power supply voltage: 230 Vac. Rated output voltage: 27.5 Vdc (with batteries not connected).
Dimensions (WxHxD): 395 x 356 x 96 mm. The power supply unit is equipped with 2 outputs with volt-free relays for the signals required by EN54-4. **Approved to EN54-4 and EN12101-10.**

**30076003**

12 VDC / 7 AH LEAD BATTERY
Lead battery with AGM technology. 12 Vdc / 7 Ah. Each individual battery cell is fitted with a one-way safety valve which guarantees the disposal of any gas build-up inside. Dimensions: 151x100x65 mm

**30076004**

12 VDC / 18 AH LEAD BATTERY
Lead battery with AGM technology. 12 Vdc / 18 Ah. Each individual battery cell is fitted with a one-way safety valve which guarantees the disposal of any gas build-up inside. Dimensions: 181x168x76 mm

**30076005**

12 VDC / 27 AH LEAD BATTERY
Lead battery with AGM technology. 12 Vdc / 27 Ah. Each individual battery cell is fitted with a one-way safety valve which guarantees the disposal of any gas build-up inside. Dimensions: 166x175x125 mm

**30076006**

12 VDC / 40 AH LEAD BATTERY
Lead battery with AGM technology. 12 Vdc / 40 Ah. Each individual battery cell is fitted with a one-way safety valve which guarantees the disposal of any gas build-up inside. Dimensions: 197x165x170 mm

**48CCB000**

METAL HOUSING FOR ADDITIONAL BATTERIES
Metal housing for additional batteries Can accommodate 2x 12 V - 18 Ah batteries. Dimensions 430 x 330 x 117 mm.

**48SDT001**

AEROSOL FOR SMOKE DETECTOR TESTING
Aerosol for smoke detector testing.

# ASPIRATING SYSTEM

GUIDE TO FIRE DETECTION

## ASPIRATION UNITS

| | | | | |
|---|---|---|---|---|
| | | | | |
| | ARTICLE CODE | ILS-1 | ILS-2 | IFT-P |
| | | ASPIRATING DETECTOR, 1 ZONE, 1 DETECT. | ASPIRATING DETECTOR, 2 ZONE, 2 DETECT. | ASP. SMOKE DETECTOR, 1 ZONE, 2 CHANNELS |
| MAIN FEATURES | DETECTION ELEMENTS | 1 high-sensitivity detector (laser) | 2 high-sensitivity point detectors | Single-zone laser detector with double thermal element |
| | COVERAGE AREA ($M^2$) | 2000 | 1600 | 1600 |
| | PIPE EXTERNAL DIAMETER (mm) | 25 | 25 | 25 |
| | PIPE INTERNAL DIAMETER (mm) | 21 | 21 | 21 |
| | PIPE NETWORK LENGTH | 1 opening: 1x110 m / 2x80 m | 2 openings: 100 m each | 2 openings: 100 m each |
| | SENSITIVITY | < 8.5% obs/m | 0.06-6% obs/m | 0.001-20% obs/m |
| | CLASS A SAMPLING HOLES | 3 | 6 | 12 (0.04% obs/m) |
| | CLASS B SAMPLING HOLES | 12 | 12 | 36 (0.04 obs/m) |
| | CLASS C SAMPLING HOLES | 36 | 36 | 36 (0.1% obs/m) |
| | CERTIFICATIONS | EN54-20 (VdS) | EN54-20 (VdS) | EN54-20 (VdS) |
| HARDWARE CHARACTERISTICS | DIMENSIONS | 225x225x85 mm | 259x184x166 mm | 254x180x165 mm |
| | IP PROTECTION RATING | IP65 | IP65 | IP65 |
| GENERAL DATA | OPERATING TEMPERATURE (°C) | -10 to 50 | -10 to 50 | 0 to 39 |
| | OPERATING HUMIDITY RH (%) | 10 to 95 | 10 to 95 | 10 to 95 |
| | SAMPLED AIR TEMPERATURE (°C) | | -20 to 60 | -20 to 60 |
| | FILTER | Dual stage, replaceable cartridge | Replaceable internal (external optional) | Replaceable double filter |
| | FLOW MONITORING | Programmable (2 levels, high/low) | Programmable (2 levels, high/low) | Thermal element twisted pair |
| | ASPIRATOR CONTROLLER | 10 programmable speeds | 10 programmable speeds | 10 programmable speeds |
| | PROGRAMMING VIA SOFTWARE | | Yes | Yes |
| ELECTRICAL SPECIFICATIONS | POWER SUPPLY VOLTAGE | 24 VDC | 24 VDC | 24 VDC |
| | MAX. ABSORPTION (W) | 7.2 | 7.2 | 30 |
| | MAXIMUM CURRENT ABSORPTION (MA) | 350 | 300 | 1200 |
| | RELAYS | 6 (Fault/Action/Fire, NC/NO, 1 A@30 VDC) | 6 (Fault/Action/Fire, NC/NO, 1 A@30 VDC) | 4 alarm relays, 1 fault relay (NC/NO, 1 A@30 VDC) |
| | POWER SUPPLY CONNECTIONS | 30-12AWG (0.2-2.5 $mm^2$) | | |
| | CONNECTIONS FROM FIELD | 11 AWG max. (2.5 mm diameter) | | |
| | USB | Standard type B USB cable | | |

## ASPIRATING ACCESSORIES

| | | |
|---|---|---|
| | **PIP-001** | RED ABS 25 mm PIPE, 20X 3 METRES<br>20x 3 metre lengths of RAL3000 ABS 25 mm pipe. |
| | **PIP-002** | CONNECTION SOCKET FOR 25 mm PIPE (10 PCS)<br>Connection socket for 25 mm pipe (10 pieces). |
| | **PIP-003** | SOCKET UNION FOR 25 mm PIPE (10 PCS)<br>Socket union for 25 mm pipe (10 pieces). |
| | **PIP-005** | 90 ELBOW FOR 25 mm PIPE (10 PCS)<br>90° elbow for 25 mm pipe (10 pieces). |
| | **PIP-006** | 45 ELBOW FOR 25 mm PIPE (10 PCS)<br>45° elbow for 25 mm pipe (10 pieces). |
| | **PIP-007** | END CAP FOR 25 mm PIPE (10 PCS)<br>End cap for 25 mm pipe (10 pieces). |
| | **PIP-008** | EQUAL TEE FOR 25 mm PIPE (10 PCS)<br>Equal Tee for 25 mm pipe (10 pieces). |
| | **PIP-009** | CLIP FOR 25 mm PIPE (20 PCS)<br>Clip for 25 mm pipe (20 pieces). |
| | **PIP-014** | PIPE CUTTERS<br>Pipe cutters (1 piece). |
| | **PIP-015** | FLUSH SAMPLE POINT HEAD FOR CAPILLARY PIPE<br>Flush sample point head for capillary pipe (1 piece). |
| | **144-013** | CONICAL SAMPLE POINT HEAD<br>Conical sample point head (1 piece). |
| | **059-007** | CONICAL SAMPLE POINT KIT AND 2 M PIPE<br>Conical sample point kit and 2 metre length of 10 mm pipe (1 piece). |
| | **059-001** | FLUSH SAMPLE POINT KIT AND 2 M PIPE<br>Flush sample point kit and 2 metre length of 10 mm pipe (1 piece). |
| | **222-059** | DISCREET END CAP FOR CAPILLARY PIPE (10 PCS)<br>End cap for capillary pipe (10 pieces). |
| | **221-035** | RED 10 mm CAPILLARY PIPE (100 M)<br>RAL3000 10 mm capillary pipe (100 m reel). |

| | | |
|---|---|---|
| | **221-036** | CLEAR 10 mm CAPILLARY PIPE (100 M)<br>Clear 10 mm capillary tube (100 m reel). |
| | **PIP-016** | TEE ADAPTER FOR CAPILLARY PIPE (10 PCS)<br>Tee adapter for capillary pipe (10 pieces). |
| | **PIP-027** | REMOTE SAMPLING TEST POINT FOR CAPILLARY TUBE<br>Remote sampling test point for 10 mm capillary tube (1 piece). |
| | **PIP-026** | 25 mm FLEXIBLE CONNECTOR, 30 CM<br>25 mm flexible connector, 30 cm (1 piece). |
| | **PIP-021** | 25 mm FLEXIBLE CONNECTOR, 100 CM<br>25 mm flexible connector, 100 cm (1 piece). |
| | **128-014** | ROUND SAMPLING POINT LABEL (100 PCS)<br>Round sampling point label (100 pieces on roll). |
| | **128-046** | RECTANGULAR SAMPLING POINT LABEL (100 PCS)<br>Rectangular sampling point label (200 pieces on roll). |
| | **128-015** | SMOKE DETECTOR PIPE LABEL (100 PCS)<br>Smoke detector pipe label (100 pieces). |
| | **PIP-025** | WATER FILTER WITH TRANSPARENT PIPE AND VALVE<br>Water trap with clear pipe and ball valve (1 piece). |
| | **VSP-850-R** | 25 mm IN-LINE EXTERNAL FILTER - RED<br>25 mm in-line external filter - Red - for use when installing aspirating detectors in contaminating environments such as sawmills, vehicle scrapping plants, etc. Internal filtering elements should be replaced regularly. |
| | **VSP-855-4** | REPLACEMENT FOR FILTER VSP-850-R - 4 PCS<br>Filtering elements for the external in-line filter VSP-850. Pack of 4 filtering elements. |
| | **02-FL53** | SPARE FILTER FOR ILS2 AND IFT-P - 10 PCS<br>Spare filter for aspirating detectors ILS-2 and IFT-P (20 ppi). For the IFT-P detector, this filter element can replace the first stage filter. Pack of 10 units. |
| | **02-FL56** | REPLACEMENT FILTER ELEMENT, IFT-P STAGE 2, 10 PCS<br>Replacement filter elements for aspirating detector IFT-P (45 ppi). Replaces the second stage filter. Pack of 10 units. |
| | **COLL250** | ADHESIVE FOR PIPES AND SOCKETS 250 ML<br>Adhesive for pipes and connections. Supplied with applicator brush. Contents: 250 ml. |

# WIRELESS EXPANSION

GUIDE TO FIRE DETECTION

## WIRELESS EXPANSION

| | | |
|---|---|---|
| | **45TRS000** | WIRELESS SIGNAL TRANSLATOR FOR CONVENTIONAL ZONE<br>The translator module allows interfacing between the conventional zone of the wired system and the wireless system. Communication via two-way radio guarantees excellent reliability. Automatic optimisation of the frequency and communication level, automatic channel selection. It can manage up to 32 devices via radio (sensors, buttons, sirens, etc.). Allows easy integration between radio systems and wired systems. Programmable from device or from a PC via RS232, by means of configuration software. **Approved to EN 54-17, EN 54-18 and EN 54-25.** |
| | **45RPT000** | REPEATER FOR WIRELESS SYSTEM<br>The wireless repeater module, connected to a translator module or another repeater module, makes it possible to extend the coverage area of the radio system, allowing installation of the wireless system in difficult environments. Two-way communication between the expander and translator guarantees optimum reliability. It is easily configured via RS232 using the configuration software, or via the keypad on the device itself. It automatically optimises the communication frequency and level; the channel is selected automatically. It can manage up to 32 devices via radio (sensors, buttons, sirens, etc.). External power supply. **Approved to EN 54-18 and EN 54-25.** |
| New | **L-OP-SG** | WIRELESS OPTICAL SMOKE DETECTOR<br>Wireless optical Tyndall-effect smoke detector. The digital signal processing algorithms make it particularly sensitive to detecting smoke, even in the early stages of a fire breaking out. Two-way radio communication. Immediate transmission in the event of an alarm, fault or removal. Monitored dual battery for backup. Two-tone LED with 360° visibility. Option of conducting the test with a magnet. IP 40 rating. Dimensions 110 x 70 mm, including base.<br>**Approved to EN 54-7 and EN 54-25.** |
| New | **L-MC-SG** | WIRELESS MULTI-CRITERIA DETECTOR<br>Wireless multi-criteria detector. Combines the detection modes of a heat detector and an optical smoke detector, and is therefore particularly suited to applications where early fire detection must be ultra-reliable (hotels, museums, etc.). The detector signals the alarm if the smoke or temperature threshold is exceeded. Two-way radio communication. Immediate transmission in the event of an alarm, fault or removal. Monitored dual battery for backup. Two-tone LED with 360° visibility. Option of conducting the test with a magnet. IP 40 rating. Dimensions 110 x 70 mm, including base. **Approved to EN 54-5, EN 54-7 and EN 54-25.** |
| New | **L-HT-SG** | WIRELESS HEAT DETECTOR<br>Wireless heat detector. Can detect the fixed threshold of 58°C in addition to rapid changes in temperature ("rate of rise") as set out by standard EN 54-5 for class A1R. The control algorithms implemented also mean it can be used in environments which are subject to ambient temperature changes; it is particularly useful for dusty or dirty environments or where the humidity level is high, factors which may negatively impact the performance of the optical sensors. Two-way radio communication. Immediate transmission in the event of an alarm, fault or removal. Monitored dual battery for backup. Two-tone LED with 360° visibility. Option of conducting the test with a magnet. IP40 rating. Dimensions 110 x 70 mm, including base. **Approved to EN 54-5 and EN 54-25.** |
| | **45PAM000** | WIRELESS MANUAL CALL POINT<br>Wireless manual call point. The button is equipped with a resettable special plastic key element (supplied) and sends an alarm signal when it is activated by pressing the indicated point. It is equipped with an LED for signalling the status. Two-way radio communication. Wall mounting. Monitored dual battery for backup. Immediate transmission in the event of an alarm, fault or removal. Operating temperature -30°C / +55°C. Weight 186 g. Dimensions 86x86x59 mm. **Approved to EN 54-11 and EN 54-25.** |
| | **45SAI020** | WIRELESS WALL-MOUNTED SIREN<br>Wall-mounted siren, to be completed with module art. 45MOD000, which makes it suitable for use in wireless systems with EN54-25 approval. Equipped with 4 volume adjustment levels and 32 different tones which can be set locally via DIP-switch. Sound power 100 dB. Dimensions: 185 mm (height, including base), 130 mm (diameter). **Approved to EN54-3.** |
| | **45SCI000** | WIRELESS SIREN WITH STROBE<br>Wall-mounted siren with strobe, to be completed with module 45MOD000, which makes it suitable for use in wireless systems with EN54-25 approval. Equipped with 4 volume adjustment levels and 32 different tones which can be set locally via DIP-switch. Flash frequency 0.5 Hz. Sound power 100 dB. 192 mm (height, including base), 130 mm (diameter). **Approved to EN54-3 and EN54-23.** |
| | **45MOD000** | MODULE FOR WIRELESS SIRENS<br>Radio interface module, for installation directly inside sirens 45SAI020 and 45SCI000, allowing them to be used in a COMELIT wireless system. Maximum distance between the translator/repeater and the module: 200 m in open field conditions. Average battery life > 3 years (with default settings). Type of batteries 2 x CR123A (3 V). **Approved to EN54-25.** |
| | **SGRBS100/L** | WIRELESS SOUNDER BASE<br>Base with wireless siren with two-way radio communication. Suitable for housing a wireless detector. Monitored dual battery for backup. Immediate transmission in the event of an alarm, fault or removal of the sensor. 32 tone options. Max. sound power 95 dBa. Communication distance in open air 200 m. Weight: 150g. Dimensions 120x52 mm. **Approved to EN 54-3, EN 54-25.** |

## WIRELESS EXPANSION

GUIDE TO FIRE DETECTION

### WIRELESS EXPANSION

**45SAC000**

COVER FOR WIRELESS SOUNDER BASE
Cover to be applied to the base with siren SGRBS100/L if a detector is not fitted.

**45FPT000**

WIRELESS LED REPEATER
The remote indicator repeats the status of the wireless detectors. Compatible with sensors that support this function. Two-way radio communication, monitored dual battery for backup. Occupies a radio address. Operating temperature -10°C / +55°C. Weight 130 g. Dimensions: 145 x 66 mm.

**45PAK000**

SPARE KEY FOR 45PAM000
Spare key for manual wireless button 45PAM000.

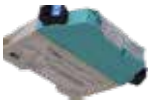
## ATEX DETECTION

GUIDE TO FIRE DETECTION

### ATEX

**48BAZ000**

ZENER BARRIER FOR ATEX DETECTORS
Zener barrier certified as an electrical system with built-in safety. Designed specifically for use with our detector 48RCX000 and the manual call point 48PAX000. Voltage: 24 V d.c. Dimensions: 104 x 70 x 12.2 mm. Approved in compliance with standards CE 0081 II (1/2) G [Eex ia/ib] IIC/IIB/PTB 01 ATEX 2088.



**48BAZ001**

ZENER BARRIER FOR ATEX SIREN
Zener barrier certified as an electrical system with built-in safety. Designed specifically for use with our siren 48SAX00 Voltage: 15-28 V d.c. Dimensions: 70 x 80 x 10 mm. Approved in compliance with standards CE 0359 II (1) GD [Eex ia] IIC/ BAS 01 ATEX 7005.

**48RBX000**

MOUNTING BASE FOR ATEX DETECTORS
Mounting base for Atex detectors 48RCX000.

**48RCX000**

ATEX HEAT-RATE OF RISE DETECTOR
Temperature detector 59°C and rate of rise 9°C/min with static safety of 59°C for zones with an atmosphere with a very high risk of explosion. Pairs with barrier 48BAZ000. Voltage: 12-30 V d.c. Current absorption in standby: 120 µA. Approved in compliance with standards CE 0081 II 1 G Eex ia IIC T6/LCIE 03 ATEX 6350 X.

**48SAX000**

ATEX SIREN
Siren for environments with an atmosphere with a high risk of explosion, pairs with Zener barrier 48BAZ001. Operating voltage: 15-28 V d.c. Approved in compliance with standards CE 0359 II 1 G Eex ia IIC T4/BAS 00 ATEX 1181.

**48PAX000**

ATEX ALARM BUTTON
Manual call point for atmospheres with a high risk of explosion. Pairs with barrier 48BAZ000. Activated mechanically, by pressing the front window. Includes an operating element that can be reset with the aid of special key. Operating voltage: from 13 to 28 V d.c. Current absorption: 150 µA. Approved to EN 60079-0 (09), EN 60079-11 (07) and complies with ATEX directives 94/9/CE.

# FIRE EXTINGUISHING SYSTEM

GUIDE TO FIRE DETECTION

## EXTINGUISHING PANEL

| | | |
|---|---|---|
| | ARTICLE CODE | 46EST003 |
| | | EXTINGUISHING PANEL |
| MAIN FEATURES | EXTINGUISHING ZONES | 2 (AND) |
| | FIRE ALARM ZONES | 1 |
| | MAX. NUMBER OF DEVICES PER ZONE | 32 |
| | MECHANICAL KEY FOR MODE SELECTION | Yes |
| | MAXIMUM NUMBER OF EVENT LOGS | 1000 |
| | EVENT LOG MODULE (OPTIONAL) | Art. 46LEP000 |
| GENERAL DATA | IP PROTECTION RATING | IP30 |
| | DIMENSIONS (W X H X D - mm) | 324x314x82 mm |
| | WEIGHT (G) | 3200 |
| | OPERATING TEMPERATURE (°C) | -5 to 40 |
| | MAX. OPERATING HUMIDITY RH (%) | (93 ± 3)% @ 40°C |
| | STORAGE TEMPERATURE (°C) | -10 to 60 |
| | CERTIFICATION STANDARD | EN54-2, EN54-4, EN12094-1 |
| TECHNICAL CHARACTERISTICS | MONITORED INPUT FOR MANUAL RELEASE | Yes |
| | MONITORED INPUT FOR PORT STATUS: LOCK/RELEASE | Yes |
| | MONITORED INPUT FOR MODE SELECTION | Yes |
| | MONITORED INPUT FOR ENABLING/DISABLING EXTINGUISHING | Yes |
| | MONITORED INPUT FOR LOW PRESSURE | Yes |
| | MONITORED INPUT FOR FLOW CONTROL | Yes |
| | OUTPUT FOR DISPLAYING PORT STATUS: LOCK/RELEASE | Yes |
| | OUTPUT FOR DISPLAYING EXTINGUISHING DISABLING | Yes |
| | OUTPUT FOR DISPLAYING LOW PRESSURE | Yes |
| | OUTPUT FOR DISPLAYING MANUAL MODE | Yes |
| ELECTRICAL SPECIFICATIONS | MAIN POWER SUPPLY | 110-230 VAC ±10% |
| | ABSORPTION (A) | 0.3@230 VAC / 0.7@110 VAC |
| | FREQUENCY (HZ) | 47 to 60 |
| | AUXILIARY POWER SUPPLY OUTPUT | 26 VDC / 1.5 A |
| | MONITORED OUTPUTS FOR SIRENS | 2 (24 VDC/0.3 A) |
| | MONITORED OUTPUTS FOR EXTINGUISHING | 1 (24 VDC/1 A 5 min - 24 VDC/3 A 20 ms) |
| | NON-MONITORED RELAY OUTPUTS FOR ALARM INDICATION | 2 (5-30 VDC / 1 A) |
| | NON-MONITORED RELAY OUTPUTS FOR FAULT INDICATION | 1 (5-30 VDC / 1 A) |
| | BACKUP BATTERIES (NOT INCLUDED) | 2 (12 VDC/7 Ah) |
| | MAXIMUM CURRENT FOR CHARGING BATTERIES (A) | 0.3 |

**46LEP000**

### EVENT LOG FOR EXTINGUISHING PANEL

Optional module for recording and viewing the events log of the fire extinguishing system panel 46EST003; provides the possibility to store up to 1000 events.

**46PMA000**

### YELLOW MANUAL CALL POINT FOR EXTINGUISHING ACTIVATION

Standard button used to activate extinguishing, with resettable element. Yellow.

**46PMS020**

### BLUE MANUAL CALL POINT FOR EMERGENCY EXTINGUISHING STOP

Standard button used to stop the extinguishing system, with resettable element. Blue.

## EASY DIN RAIL GAS PANELS

| | | |
|---|---|---|
| | | |
| | ARTICLE CODE | 47CDG206 |
| | | EASY DIN GAS PANEL FOR 2 - 6 SENSORS |
| MAIN FEATURES | PRE-PROGRAMMED SENSORS | Yes |
| | GAS LEVEL DISPLAY IN REAL TIME | Yes |
| | NUMBER OF PASSWORD-PROTECTED ACCESS LEVELS | 3 |
| | SERIES OF CONNECTABLE SENSORS | Art. 47RTSxxx, 47TS255CB |
| GENERAL DATA | DIMENSIONS (W X H X D - mm) | 90x60x71 |
| | WEIGHT (G) | 195 |
| | OPERATING TEMPERATURE (°C) | 5 |
| | OPERATING TEMPERATURE (°C) | 40 |
| | DISPLAY BACKLIGHTING COLOUR | Amber |
| | NUMBER OF KEYS ON THE BACKLIT KEYPAD | 4 |
| TECHNICAL CHARACTERISTICS | NUMBER OF SYSTEM STATUS LEDS | 3 |
| | INTERNAL BUZZER | Yes |
| | PROGRAMMABLE TRIGGER THRESHOLDS | Yes |
| | NUMBER OF PANEL-SENSOR CABLES | 3 |
| ELECTRICAL SPECIFICATIONS | POWER SUPPLY VOLTAGE | 12-24 VDC (-10% to +15%) |
| | MAXIMUM ABSORPTION | 15 W |
| | NUMBER OF LINEAR INPUTS 4-20 MA | 2 as standard, + 4 (with card art. 47EDG020) |
| | SENSOR INPUT POWER SUPPLY | 20 VDC (-10% to +15%) |
| | RELAY CONTACT CAPACITY | 3 A@230 VAC / 2 A@30 VDC |
| | INPUT CHARGE INTERNAL RESISTANCE (Ω) | 200 |
| | MAXIMUM DETECTOR DISTANCE WITH SHIELDED CABLE 3X1.5mm2 (M) | 300 |
| | MAXIMUM DETECTOR DISTANCE WITH SHIELDED CABLE 3X2.5mm2 (M) | 600 |

## EASY DIN PANEL ACCESSORIES

**47EDG020**

### 2-SENSOR EXPANDER FOR PANEL 47CDG206

Expansion module for two sensors. 2 modules art. 47EDG020 can be added to panel art. 47CDG206, for the connection of up to 6 sensors. Connection to the panel: 4 wires. Dimensions: 2 DIN modules.

**47ADG206**

### DIN RAIL POWER SUPPLY UNIT FOR PANEL 47CDG206

Power supply unit 230 VAC/24 VDC. Capable of powering panel art. 47CDG206, as well as additional modules art. 47EDG020 and the corresponding sensors connected to them. Dimensions: 3 DIN modules.

**47ADB012**

### POWER SUPPLY UNIT FOR 12 V LITHIUM BATTERY

230 VAC power supply unit with 12 VDC output. Can be used to recharge lithium batteries art. 47BDL012. Dimensions: 3 DIN modules.

**47BDL012**

### LITHIUM BATTERY ON DIN RAIL

Lithium battery for panel art. 47CDG206 which provides 30/40 minutes of independent run time with a full system setup. Can be installed on DIN rail, with obvious advantages in terms of space and cost. Dimensions: 3 DIN modules. Output voltage: 10.8 VDC. Capacity of 1.7 Ah.

## PROFESSIONAL INDUSTRIAL GAS PANELS

| | | | |
|---|---|---|---|
| | ARTICLE CODE | 47CPG408 | 47CPG424 |
| | | WALL-MOUNTED GAS PANEL FOR 4 - 8 SENSORS | WALL-MOUNTED GAS PANEL FOR 4 - 24 SENSORS |
| MAIN FEATURES | PRE-PROGRAMMED SENSORS | Yes | Yes |
| | GAS LEVEL DISPLAY IN REAL TIME | Yes | Yes |
| | NUMBER OF PASSWORD-PROTECTED ACCESS LEVELS | 3 | 3 |
| | RESET FUNCTION | Yes | Yes |
| | AND/OR/PARKING OP. LOG. (D.M. 1/2/86 OR EN50545-1) USED BY ZONE | Yes | Yes |
| | FW UPDATING VIA SD CARD | Yes | Yes |
| | PROGRAMMING AND EVENT LOG BACKUP ON SD CARD | | Yes |
| | MAXIMUM NUMBER OF EVENT LOGS | 100 | 100 |
| | SERIES OF CONNECTABLE SENSORS | Art. 47RTSxxx, 47TS255CB | Art. 47RTSxxx, 47TS255CB |
| GENERAL DATA | IP PROTECTION RATING | IP42 | IP42 |
| | DIMENSIONS (W X H X D - mm) | 379x241x133 | 379x241x133 |
| | WEIGHT (G) | 2200 | 2200 |
| | OPERATING TEMPERATURE (°C) | 5 to 40 | 5 to 40 |
| | MAX. OPERATING HUMIDITY RH (%) | 5-90% RH | 5-90% RH |
| | DISPLAY BACKLIGHTING COLOUR | White | Colour |
| | NUMBER OF KEYS ON THE BACKLIT KEYPAD | 8 | 18 |
| TECHNICAL CHARACTERISTICS | NUMBER OF SYSTEM STATUS LEDS | 3 | 3 |
| | INTERNAL BUZZER | Yes | Yes |
| | NUMBER OF TRIGGER THRESHOLDS | 3 | 3 |
| | FAULT TRIGGER THRESHOLDS | Yes | Yes |
| | PROGRAMMABLE TRIGGER THRESHOLDS | Yes | Yes |
| | PROGRAMMABLE ZONE TRIGGER THRESHOLDS | Yes | Yes |
| | NUMBER OF PANEL-SENSOR CABLES | 3 | 3 |
| ELECTRICAL SPECIFICATIONS | POWER SUPPLY VOLTAGE | 90-264 VAC / 47-63 Hz | 90-264 VAC / 47-63 Hz |
| | BACKUP POWER SUPPLY | 24 VDC | 24 VDC |
| | MAXIMUM ABSORPTION | 1.6 A@110 VAC / 1 A@230 VAC | 1.6 A@110 VAC / 1 A@230 VAC |
| | MAXIMUM CURRENT DELIVERED BY THE POWER SUPPLY UNIT | 2.7 A@27.6 VDC | 2.7 A@27.6 VDC |
| | NUMBER OF LINEAR INPUTS 4-20 MA | 4 as standard, + 4 (with card art. 47ESP040) | 4 as standard, + 4 (with art. 47ESP040), + 16 (with 2 art. 47ESP080) |
| | NUMBER OF INSTANT ALARM INPUTS | 1 | 1 |
| | SENSOR INPUT POWER SUPPLY | 24 VDC (-10% / +15%) / 100 mA | 24 VDC (-10% / +15%) / 100 mA |
| | NUMBER OF PROGRAMMABLE OUTPUTS | 5 as standard, + 4 (with card art. 47REL040) | 5 as standard, + 4 (with card art. 47REL040) |
| | RELAY CONTACT CAPACITY | 3 A@230 VAC / 2 A@30 VDC | 3 A@230 VAC / 2 A@30 VDC |
| | INPUT CHARGE INTERNAL RESISTANCE (Ω) | 100 | 100 |
| | MAXIMUM DETECTOR DISTANCE WITH SHIELDED CABLE 3X0.75mm2 (M) | 300 | 300 |
| | MAXIMUM DETECTOR DISTANCE WITH SHIELDED CABLE 3X1.5mm2 (M) | 500 | 500 |
| | MAXIMUM DETECTOR DISTANCE WITH SHIELDED CABLE 3X2.5mm2 (M) | 800 | 800 |

| | | |
|---|---|---|
| | **47ESP040** | 4-INPUT EXPANSION FOR GAS PANELS<br>Expansion card with 4 inputs for 4-20 mA sensors; can be connected to panel 47CPG408 (max. 1 expansion) and to panel 47CPG424 (max. 1 expansion). |
| | **47ESP080** | 8-INPUT EXPANSION FOR PANELS 47CPG424<br>Remote unit with 8 inputs for sensors 4-20 mA, for connection to panel art. 47CPG424 only via RS485 ports (max. 2 units). Power supply 230 Vac. |
| | **47REL040** | 4-RELAY EXPANSION FOR GAS PANELS<br>Expansion card with 4 relay outputs; can be connected to panel 47CPG408 (max. 1 expansion) and to panel 47CPG424 (max. 1 expansion). |
| | **47SER080** | CARD WITH 4 RELAY OUTPUTS FOR 47ESP080 (MAX 2)<br>Additional expansion card with 4 relay outputs, for connection to remote unit 47ESP080 (max. 2 expansions per unit). |

## INDUSTRIAL GAS DETECTORS FOR EASY DIN AND PROFESSIONAL PANELS

| | | | | |
|---|---|---|---|---|
| | ARTICLE CODE | 47TS255CB | 47RTS282KM | 47RTS282KG |
| | | INDUSTRIAL DUAL GAS DETECTOR 4-20 MA | INDUSTRIAL AUTONOMOUS GAS DETECTOR | INDUSTRIAL AUTONOMOUS GAS DETECTOR |
| MAIN FEATURES | TYPE OF GAS DETECTED | Carbon monoxide (CO), petrol | Methane | LPG |
| | INSTALLATION HEIGHT (M) | 1.6 | | 0.3 |
| | INSTALLATION HEIGHT (CM FROM THE CEILING) | | 30 | |
| | KEYS FOR CALIBRATION AND CHECKING WITH CODE (N°) | 2 | 2 | 2 |
| | SENSOR TYPE | Electrochemical, Catalytic | Catalytic | Catalytic |
| | INTERCHANGEABLE CARTRIDGE | Yes | Yes | Yes |
| GENERAL DATA | PROTECTION RATING | IP65 | IP65 | IP65 |
| | STORAGE TEMPERATURE (°C) | | -20 to 55 | -20 to 55 |
| | STORAGE HUMIDITY (RH - % - NON-CONDENSING) | | 5 to 95 | 5 to 95 |
| | MAXIMUM STORAGE TIME (MONTHS) | 3 | | |
| | OPERATING TEMPERATURE (°C) | -20 to 50 | -10 to 50 | -10 to 50 |
| | OPERATING HUMIDITY (RH - % - NON-CONDENSING) | 15 to 90 | 10 to 90 | 10 to 90 |
| | DIMENSIONS (W X H X D - mm) | 166.5x175x70 | 238x106x75 | 238x106x75 |
| TECHNICAL CHARACTERISTICS | NUMBER OF STATUS LEDS | 5 | 5 | 5 |
| | AVERAGE CARTRIDGE LIFE (YEARS - CLEAN AIR) | 5 | 5 | 5 |
| | MEASURING RANGE (PPM) | 0 to 300 | | |
| | FIELD OF MEASUREMENT (% LEL) | 0 to 20 | 0 to 20 | 0 to 20 |
| | DETECTION ACCURACY (%) | 10% ± 10% | ± 10% | ± 10% |
| | SENSOR OPERATING LIMIT (PPM) | 1500 | | |
| | SENSOR OPERATING LIMIT (% LEL) | 30 | | |
| | MAXIMUM RESPONSE TIME (T90 -S.) | 60 | 60 | 60 |
| | MAXIMUM LONG-TERM DRIFT (%/MONTH) | | | |
| | MAXIMUM LONG-TERM DRIFT (%/YEAR) | 5 | 4 | 4 |
| ELECTRICAL SPECIFICATIONS | POWER SUPPLY | 12-24 VDC (-10% / +15%) | 12-24 VDC (-10% / +15%) | 12-24 VDC (-10% / +15%) |
| | CONSUMPTION (W) | 3 | 3 | 3 |
| | LOAD RESISTANCE | 50 Ω@12 VDC (-10%) / 500 Ω@24 VDC (-10%) | | |
| | NUMBER OF 4-20 MA LINEAR OUTPUTS | 2 | 1 | 1 |
| | NUMBER OF ALARM RELAY OUTPUTS | | 3 | 3 |
| | NUMBER OF FAULT RELAY OUTPUTS | | 1 | 1 |
| | RELAY CONTACT CAPACITY | | 1 A@24 VDC | 1 A@24 VDC |
| | ALARM LEVEL PROGRAMMING WITH DIP-SWITCHES | | Yes | Yes |

## REPLACEABLE CARTRIDGES

| | |
|---|---|
| **47ZSK01/IP** | GAS CARTRIDGE, METHANE AND LPG<br>Replacement cartridge for methane of LPG detector. |
| **47ZSK02/IP** | GAS CARTRIDGE, HYDROGEN<br>Replacement cartridge for Hydrogen detector. |
| **47ZSKB/IP** | GAS CARTRIDGE, GASOLINE<br>Replacement cartridge for gasoline fumes detector. |
| **47ZSEC/IP** | GAS CARTRIDGE, CO<br>Replacement cartridge for Carbon Monoxide detector. |

| | | | | |
|---|---|---|---|---|
| | | | | |
| | **47RTS282KI** | **47RTS282KB** | **47RTS282EO** | **47RTS282EC-S** |
| | INDUSTRIAL AUTONOMOUS GAS DETECTOR | INDUSTRIAL AUTONOMOUS GAS DETECTOR | INDUSTRIAL AUTONOMOUS GAS DETECTOR | INDUSTRIAL AUTONOMOUS GAS DETECTOR |
| | Hydrogen | Gasoline vapours | Oxygen | Carbon monoxide (CO) |
| | | 0.4 | 1.6 | 1.6 |
| | 30 | | | |
| | 2 | 2 | 2 | 2 |
| | Catalytic | Catalytic | Electrochemical | Electrochemical |
| | Yes | Yes | Yes | Yes |
| | IP65 | IP65 | IP65 | IP65 |
| | -20 to 55 | -20 to 55 | 0 to 20 | 0 to 20 |
| | 5 to 95 | 5 to 95 | 5 to 95 | 5 to 95 |
| | | | 3 | 3 |
| | -10 to 50 | -10 to 50 | -20 to 50 | -20 to 50 |
| | 10 to 90 | 10 to 90 | 15 to 90 | 15 to 90 |
| | 238x106x75 | 238x106x75 | 238x106x75 | 238x106x75 |
| | 5 | 5 | 5 | 5 |
| | 5 | 5 | 2 | 3 |
| | | | | 0 to 300 |
| | 0 to 20 | 0 to 20 | 0 to 25 | 0 to 20 |
| | ± 10% | ± 10% | ± 2% of the signal in air | 10% |
| | | | | 1000 |
| | | | 30 | |
| | 60 | 60 | 20 | 60 |
| | | | 2 | 2 |
| | 4 | 4 | | |
| | 12-24 VDC (-10% / +15%) | 12-24 VDC (-10% / +15%) | 12-24 VDC (-10% / +15%) | 12-24 VDC (-10% / +15%) |
| | 3 | 3 | 2 | 2 |
| | | | | 50 Ω@12 VDC (-10%) / 500 Ω@24 VDC (-10%) |
| | 1 | 1 | 1 | 1 |
| | 3 | 3 | 3 | 3 |
| | 1 | 1 | 1 | 1 |
| | 1 A@24 VDC | 1 A@24 VDC | 1 A@24 VDC | 1 A@24 VDC |
| | Yes | Yes | Yes | Yes |

| | |
|---|---|
| **47ZSEO/IP** | GAS CARTRIDGE, OXYGEN<br>Replacement cartridge for Oxygen detector. |
| **47ZSEC1** | GAS CARTRIDGE 47TS255CB CO<br>Replacement cartridge for Carbon Monoxide detector art. 47TS255CB. |
| **47ZSK04** | GAS CARTRIDGE 47TS255CB, GASOLINE VAPOURS<br>Replacement cartridge for gasoline fumes detector art. 47TS255CB. |

## COMPACT INDUSTRIAL GAS PANELS SUITABLE FOR THERMAL PLANTS

| | | | |
|---|---|---|---|
| | ARTICLE CODE | 47CMZ001 | 47CPZ003 |
| | | WALL-MOUNTED SINGLE-ZONE GAS PANEL | WALL-MOUNTED GAS PANEL, 3 DETECTORS |
| MAIN FEATURES | GAS LEVEL DISPLAY IN REAL TIME | Yes | Yes |
| | RESET FUNCTION | Yes | Yes |
| | SERIES OF CONNECTABLE SENSORS | Art. 47SE192KM, 47SE192KG | Art. 47SE192KM, 47SE192KG |
| GENERAL DATA | IP PROTECTION RATING | IP65 | IP65 |
| | DIMENSIONS (W X H X D - mm) | 202x153x104 | 202x153x104 |
| | WEIGHT (G) | 700 | 700 |
| | OPERATING TEMPERATURE (°C) | -10 to 50 | -10 to 50 |
| | MAX. OPERATING HUMIDITY RH (%) | 5-90% RH | 5-90% RH |
| TECHNICAL CHARACTERISTICS | NUMBER OF TRIGGER THRESHOLDS | 2 | 2 |
| | ALARM TRIGGER THRESHOLD 1 | 10% LEL | 10% LEL |
| | ALARM TRIGGER THRESHOLD 2 | 20% LEL | 20% LEL |
| | NUMBER OF PANEL-SENSOR CABLES | 3 | 3 |
| ELECTRICAL SPECIFICATIONS | NON-MONITORED RELAY OUTPUTS FOR ALARM INDICATION | 2 (5-30 VDC / 1 A) | 2 (5-30 VDC / 1 A) |
| | NON-MONITORED RELAY OUTPUTS FOR FAULT INDICATION | 1 (5-30 VDC / 1 A) | 1 (5-30 VDC / 1 A) |
| | POWER SUPPLY VOLTAGE | 230 VAC/12-24 VAC (-15% to +10%)/50 Hz/3 VA, 12-24 VDC (-10% to +15%)/1.5 W | 230 VAC (-15% to +10%)/50 Hz/8 VA, 24 VDC (-10% to +15%)/9 W |
| | NUMBER OF LINEAR INPUTS 4-20 MA | 1 | 3 |
| | NO. OF AUX INPUTS FOR SOLENOID VALVE WITH MAGNETIC SENSOR | 1 | 1 |
| | RELAY CONTACT CAPACITY | 3 A@230 VAC / 2 A@30 VDC | 3 A@230 VAC / 2 A@30 VDC |
| | MAXIMUM DETECTOR DISTANCE WITH SHIELDED CABLE 3X1.5mm2 (M) | 100 | 100 |
| | MAXIMUM DETECTOR DISTANCE WITH SHIELDED CABLE 3X2.5mm2 (M) | 200 | 200 |

## GAS DETECTORS FOR COMPACT PANELS

**47SE192KM**

### METHANE GAS DETECTOR

Catalytic sensor for methane gas. Exclusively for connection to panels art. 47CMZ001/47CPZ003. Completely unaffected by temperature and humidity, with professional-level sensitive element. Ideal for installation in thermal or small/medium operation panels, for detecting potential gas leaks. Powered directly by panel art. 47CMZ001/47CPZ003. Power supply 12 VDC, absorption 1 W, output 4-20 mA. Field of measurement 0-20% L.E.L., protection rating IP44. Approximate duration 5 years.

**47SE192KG**

### LPG GAS DETECTOR

Catalytic sensor for LPG. Exclusively for connection to panels art. 47CMZ001/47CPZ003. Completely unaffected by temperature and humidity, with professional-level sensitive element. Ideal for installation in thermal or small/medium operation panels, for detecting potential gas leaks. Powered directly by panel art. 47CMZ001/47CPZ003. Power supply 12 VDC, absorption 1 W, output 4-20 mA. Field of measurement 0-20% L.E.L., protection rating IP44. Approximate duration 5 years.

## DETECTORS FOR DOMESTIC USE

**47RFM000**

### METHANE GAS DETECTOR FOR DOMESTIC USE

This domestic use Methane gas leak detector utilises a visible signal (3 LEDs) and an audible signal (internal buzzer) to alert users to the presence of gas in the atmosphere. It is designed to work as a gas detector with voltage-free relay output. Contacts capacity 8 A-250 VAC/30 VDC. The detector is calibrated to detect a gas concentration of 10% of the L.E.L. (Lower Explosive Limit); this threshold may vary depending on environmental conditions but will not exceed 15% of the L.E.L. during the first 4 years.

**47RFG000**

### LPG GAS DETECTOR FOR DOMESTIC USE

This domestic use LPG leak detector utilises a visible signal (3 LEDs) and an audible signal (internal buzzer) to alert users to the presence of gas in the atmosphere. It is designed to work as a gas detector with voltage-free relay output. Contacts capacity 8 A-250 VAC/30 VDC. The detector is calibrated to detect a gas concentration of 10% of the L.E.L. (Lower Explosive Limit); this threshold may vary depending on environmental conditions but will not exceed 15% of the L.E.L. during the first 4 years.

# VOICE EVACUATION SYSTEM

GUIDE TO FIRE DETECTION

## EVAC COMPACT PANELS

| | ARTICLE CODE | 49CC0002 | 49CC0004 | 49CC0006 |
|---|---|---|---|---|
| | | COMPACT 2-ZONE EVAC PANEL | COMPACT 4-ZONE EVAC PANEL | COMPACT 6-ZONE EVAC PANEL |
| MAIN FEATURES | NUMBER OF AUDIO ZONES | 2 | 4 | 6 |
| | NUMBER OF AMPLIFIERS | 2 | 4 | 6 |
| | MAXIMUM TOTAL AUDIO POWER (W) | 500 | 500 | 500 |
| | MAXIMUM AUDIO POWER PER INDIVIDUAL AUDIO ZONE (W) | 250 | 250 | 250 |
| | BACKUP AMPLIFIER (RESERVE) | Yes | Yes | Yes |
| | OPERATING CONFIGURATIONS FOR BACKUP AMPLIFIER | Zone 1 | Zone 1, 2, 3 | Zone 1, 2, 3, 4, 5 |
| | LOUDSPEAKER LINE FOR EACH ZONE A AND B (LINE REDUNDANCY) | Yes | Yes | Yes |
| | BACKLIT DISPLAY WITH TOUCHSCREEN (INCHES) | 4.3 | 4.3 | 4.3 |
| | DISPLAY RESOLUTION (PIXELS) | 480x272 | 480x272 | 480x272 |
| | MAX. NUMBER OF COMPACT PANELS CONNECTED TO EACH OTHER FOR A SYSTEM | 6 | 6 | 6 |
| | DUAL RJ45 SOCKET FOR LINK CONNECTION BETWEEN COMPACT PANELS | Yes | Yes | Yes |
| | FRONT INPUT FOR EMERGENCY MICROPHONE | Yes | Yes | Yes |
| | CONNECTION OF MICROPHONE STATIONS WITH RJ45 CONNECTION | Yes | Yes | Yes |
| | CONNECTION OF EMERGENCY STATIONS WITH RJ45 CONNECTION | Yes | Yes | Yes |
| | PROGRAMMABLE BALANCED AUXILIARY LINE (LINE-VOX) | Yes | Yes | Yes |
| | BALANCED MUSIC INPUT LINE | Yes | Yes | Yes |
| | PROGRAMMABLE MONITORED INPUTS | 7 | 7 | 7 |
| | RELAY OUTPUTS FOR EMERGENCY AND FAULT INDICATION | 3 | 3 | 3 |
| | WALL-MOUNTED INSTALLATION | Yes | Yes | Yes |
| HARDWARE CHARACTERISTICS | IP PROTECTION RATING | IP30 | IP30 | IP30 |
| GENERAL DATA | OPERATING TEMPERATURE (°C) | 5 to 40 | 5 to 40 | 5 to 40 |
| | MAX. OPERATING HUMIDITY RH (%) | 25 to 75 | 25 to 75 | 25 to 75 |
| | HEIGHT (mm) | 620 | 620 | 620 |
| | WIDTH (mm) | 430 | 430 | 430 |
| | DEPTH (mm) | 240 | 240 | 240 |
| | DEPTH (mm) | 240 | 240 | 240 |
| ELECTRICAL SPECIFICATIONS | POWER SUPPLY VOLTAGE | 230 VAC / 50-60 Hz (+10% / -15%) | 230 VAC / 50-60 Hz (+10% / -15%) | 230 VAC / 50-60 Hz (+10% / -15%) |
| | MAXIMUM ABSORPTION | 646 W (2 amplifiers active) | 653 W (2 amplifiers active/2 amplifiers in standby) | 660 W (2 amplifiers active/4 amplifiers in standby) |
| | ABSORPTION IN STANDBY WHEN EMPTY (W) | 36 | 46 | 50 |
| | MAX ABSORPTION FOR SECONDARY POWER SUPPLY 24 VDC (A) | 20 | 20 | 20 |
| | STANDBY ABSORPTION FOR SECONDARY POWER SUPPLY 24 VDC (A) | 0.7 | 0.7 | 0.7 |
| | STANDBY ABSORPTION FOR SECONDARY POWER SUPPLY 24 VDC (A) | 0.2 | 0.2 | 0.2 |
| | MAX. BATTERY HOUSING | 2x40 Ah | 2x40 Ah | 2x40 Ah |

## MICROPHONE STATIONS

**49BME001**

### REMOTE EMERGENCY CALL STATION

The remote station 49BME001 makes it possible, via a controlled microphone, to send live emergency messages or recorded alert and evacuation messages in a general call. The LEDs on the front panel provide the main information relating to emergency system status and faults. The station must be completed with an additional microphone (not included); either 49MST002 or 49MPA003. **Approved to EN 54-16.**

**49BME012**

### 12-ZONE REMOTE EMERGENCY CALL STATION

The remote station 49BME012 makes it possible, via a controlled microphone, to send live emergency messages or recorded alert and evacuation messages in separate zones (max. 12). The LEDs on the front panel provide the main information relating to emergency system status and faults. The station must be completed with an additional microphone (not included); either 49MST002 or 49MPA003. **Approved to EN 54-16.**

**49BME216**

### REMOTE TOUCHSCREEN EMERGENCY STATION

The touchscreen emergency stations art. 49BME216 can be used to send hands-free messages and pre-recorded evacuation/pre-alarm messages. The large backlit display is used to manage and customise calls across all zones in the system, while corresponding LEDs provide the main information regarding the status of the emergency system and any faults which may have occurred. The station must be completed with an additional microphone (not included); choose between models 49MST002 or 49MPA003. The stations have LEDs (2) as standard to indicate the operating status of the system; they must be connected to the voice evacuation panels ans used as an alternative to the emergency stations art. 49BME001 and/or 49BME012. **Approved to EN 54-16**.

**49MPA003**

### HANDHELD MICROPHONE FOR REMOTE STATION

Dynamic handheld microphone with PTT key for remote stations for emergency calls, 49BME001, 49BME012 and 49BME216. **Approved to EN 54-16.**

**49MST002**

### STEM MICROPHONE FOR REMOTE STATION

Dynamic microphone with flexible stem for remote stations for emergency calls, 49BME001, 49BME012 and 49BME216. **Approved to EN 54-16.**

**49PMS006**

### MICROPHONE STATION WITH 6-ZONE MICROPHONE

Pre-amplified station with electret unit with flexible stem microphone. 6 keys for zone selection (can also be configured individually as alarm keys) and general call, release/hold PTT+LOCK button. Priority level configuration (up to level 7) and microphone sensitivity adjustment. Power on and busy indication light. RJ45 connectors for connection with direct CAT5 and SF-UTP cables.

**49PMS012**

### MICROPHONE STATION WITH 12-ZONE MICROPHONE

Pre-amplified station with electret unit with flexible stem microphone. 12 keys for zone selection (can also be configured individually as alarm keys) and general call, release/hold PTT+LOCK button. Priority level configuration (up to level 7) and microphone sensitivity adjustment. Power on and busy indication light. RJ45 connectors for connection with direct CAT5 and SF-UTP cables.

## SPEAKERS

| | | | | | |
|---|---|---|---|---|---|
| | |  | | | |
| | ARTICLE CODE | 49DIR012 | 49DPO006 | 49DPQ006 | 49PLA006 |
| | | RECTANGULAR FLUSH-MOUNT SPEAKER EN54-24 | OVAL WALL/CEILING MOUNT SPEAKER EN54-24 | SQUARE METAL WALL/CEILING MOUNT SPEAKER, EN54-24 | 180 mm LIGHT FITTING FOR SUSPENDED CEILING, EN54-24 |
| MAIN FEATURES | RATED POWER | 12 W (100 V) | 6 W (100 V) | 6 W (100 V) | 6 W (100 V) |
| | RATED IMPEDANCE (100 V LINE) LEV1 | 833 ohm (12 W) | 1667 ohm (6 W) | 1667 ohm (6 W) | 1667 ohm (6 W) |
| | RATED IMPEDANCE (100 V LINE) LEV2 | 1670 ohm (6 W) | 3333 ohm (3 W) | 3333 ohm (3 W) | 3333 ohm (3 W) |
| | RATED IMPEDANCE (100 V LINE) LEV3 | 3330 ohm (3 W) | 6667 ohm (1.5 W) | 6667 ohm (1.5 W) | 6667 ohm (1.5 W) |
| | RATED IMPEDANCE (100 V LINE) LEV4 | | | | |
| | RATED IMPEDANCE (70 V LINE) LEV1 | 408 ohm (12 W) | 817 ohm (6 W) | 817 ohm (6 W) | 817 ohm (6 W) |
| | RATED IMPEDANCE (70 V LINE) LEV2 | 817 ohm (6 W) | 1633 ohm (3 W) | 1633 ohm (3 W) | 1633 ohm (3 W) |
| | RATED IMPEDANCE (70 V LINE) LEV3 | 1633 ohm (3 W) | 3267 ohm (1.5 W) | 3267 ohm (1.5 W) | 3267 ohm (1.5 W) |
| | SENSITIVITY | 88 dB (@1 m, P=1 W) | 91 dB (@1 m, P=1 W) | 91 dB (@1 m, P=1 W) | 91 dB (@1 m, P=1 W) |
| HARDWARE CHARACTERISTICS | DIMENSIONS | 165x280x70 mm | 258x169x72 mm | 210x190x70 mm | 180 (ø) x 120 (H) mm |
| | FIXING TYPE | Wall/Ceiling | Wall/Ceiling | Wall/Ceiling | Suspended ceiling |
| | FLUSH MOUNTING | Yes | | | Yes |
| | MOUNTING HOLE | | | | Ø=165 mm |
| | WEIGHT (G) | 2000 | 750 | 1600 | 1600 |
| | IP PROTECTION RATING | IP32 | IP32 | IP32 | IP32 |
| | APPLICATION TYPE | A | A | A | A |
| GENERAL DATA | MAXIMUM SOUND PRESSURE LEVEL SPL* | 98 dB (@1 m, P=12 W) | 116 dB (@1 m, P=20 W) | 99 dB (@1 m, P=6 W) | 100 dB (@1 m, P=20 W) |
| | FREQUENCY RESPONSE (PEAK -10 DB) | 100 to 20000 | 180 to 10000 | 150 to 15000 | 350 to 15000 |
| | HORIZONTAL DISPERSION ANGLE (*) 500 HZ (°) | 180 | 180 | 180 | 180 |
| | HORIZONTAL DISPERSION ANGLE (*) 1 KHZ (°) | 170 | 180 | 180 | 180 |
| | HORIZONTAL DISPERSION ANGLE (*) 2 KHZ (°) | 160 | 110 | 90 | 160 |
| | HORIZONTAL DISPERSION ANGLE (*) 4 KHZ (°) | 80 | 70 | 70 | 70 |
| | VERTICAL DISPERSION ANGLE (*) 500 HZ (°) | 180 | 180 | 180 | 180 |
| | VERTICAL DISPERSION ANGLE (*) 1 KHZ (°) | 180 | 180 | 180 | 180 |
| | VERTICAL DISPERSION ANGLE (*) 2 KHZ (°) | 170 | 100 | 90 | 160 |
| | VERTICAL DISPERSION ANGLE (*) 4 KHZ (°) | 50 | 90 | 70 | 70 |
| | OPERATING TEMPERATURE (°C) | -25 to 55 | -25 to 55 | -25 to 55 | -25 to 55 |
| | STORAGE TEMPERATURE (°C) | -40 to 70 | -40 to 70 | -40 to 70 | -40 to 70 |
| | MAX. OPERATING HUMIDITY RH (%) | < 95% | < 95% | < 95% | < 95% |

**49MSC006**

### KIT OF 6 CERAMIC TERMINALS FOR SPEAKERS

Kit of 6 pieces of ceramic terminals for the connection of speakers which require external wiring, such as horn models and one- or two-direction projectors.

**49ATT060**

### 60 W LINE ATTENUATOR WITH BYPASS RELAY

The attenuator 49ATT060 can be used to adjust the power of speakers connected downstream of the module. It is equipped with a bypass relay, capable of disabling the attenuator if there are more important alarm and/or emergency signals coming from the evacuation panel. Wall mounting is easy using the box art. 49ATT001, or it can also be recessed in a round box with a centre distance of 60 mm.

**49ATT001**

### WALL HOUSING FOR LINE ATTENUATOR

Plastic box for wall mounting of attenuator 49ATT060.

| | | | | | |
|---|---|---|---|---|---|
| | | | | | |
| | **49PLA012** | **49PRB006** | **49PRM012** | **49PRM020** | **49TRM020** |
| | **220 mm LIGHT FITTING FOR SUSPENDED CEILING, EN54-24** | **6+6 W BI-DIRECTIONAL SOUND PROJECTOR, EN54-24** | **12 W MONO-DIRECTIONAL SOUND PROJECTOR, EN54-24** | **VANDAL-RESISTANT MONO-DIRECTIONAL SOUND PROJECTOR, EN54-24** | **20 W HORN SPEAKER, EN54-24** |
| | 12 W (100 V) | 6+6 W (100 V) | 12 W (100 V) | 20 W (100 V) | 20 W (100 V) |
| | 833 ohm (12 W) | 833 ohm (12 W) | 833 ohm (12 W) | 500 ohm (20 W) | 500 ohm (20 W) |
| | 1670 ohm (6 W) | 1670 ohm (6 W) | 1670 ohm (6 W) | 1000 ohm (10 W) | 670 ohm (15 W) |
| | 3330 ohm (3 W) | 3330 ohm (3 W) | 3330 ohm (3 W) | 2000 ohm (5 W) | 1000 ohm (10 W) |
| | | | | | 2000 ohm (5 W) |
| | 408 ohm (12 W) | | | | |
| | 817 ohm (6 W) | | | | |
| | 1633 ohm (3 W) | | | | |
| | 94 dB (@1 m, P=1 W) | 88 dB (@1 m, P=1 W) | 90 dB (@1 m, P=1 W) | 92 dB (@1 m, P=1 W) | 103 dB (@1 m, P=1 W) |
| | 220 (ø) x 140 (H) mm | 140 (ø) x 207 (H) mm | 140 (ø) x 207 (H) mm | 180x145x178 mm | 213 (ø) x 230 (H) mm |
| | Suspended ceiling | Wall/Ceiling | Wall/Ceiling | Wall/Ceiling | Wall/Ceiling |
| | Yes | | | | |
| | Ø=205 mm | | | | |
| | 2000 | 2000 | 1700 | 2400 | 1800 |
| | IP32 | IP44 | IP44 | IP65 | IP66 |
| | A | A | A | B | B |
| | 105 dB (@1 m, P=20 W) | 99 dB (@1 m, P=12 W) | 101 dB (@1 m, P=12 W) | 105 dB (@1 m, P=20 W) | 116 dB (@1 m, P=20 W) |
| | 100 to 15000 | 170 to 14000 | 170 to 13000 | 150 to 15000 | 500 to 5000 |
| | 180 | 180 | 360 | 280 | 240 |
| | 180 | 80 | 170 | 190 | 110 |
| | 110 | 120 | 100 | 100 | 70 |
| | 60 | 60 | 70 | 70 | 40 |
| | 180 | 180 | 360 | 360 | 240 |
| | 180 | 80 | 170 | 180 | 110 |
| | 110 | 120 | 100 | 130 | 70 |
| | 60 | 60 | 70 | 60 | 40 |
| | -25 to 55 | -25 to 55 | -25 to 55 | -25 to 55 | -25 to 55 |
| | -40 to 70 | -40 to 70 | -40 to 70 | -40 to 70 | -40 to 70 |
| | < 95% | < 95% | < 95% | < 95% | < 95% |

**48CVE115**

EVAC CABLE EN50200 CEI20-105 PH30 2X1.5 100 M
Purple cable for vocal evacuation systems, length 100 m, with cross-section 2 x 1.5 mm2. Approved to EN50200, CEI20-105

**48CVE125**

EVAC CABLE EN50200 CEI20-105 PH30 2X2.5 100 M
Purple cable for vocal evacuation systems, length 100 m, with cross-section 2 x 2.5 mm2. Approved to EN50200, CEI20-106

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**UK, London, Riverlight residences**
15 x 316Touch entrances - 33 x 1Button Concierge call panels,stainless steel - 11 Penthouses Creston Interfaces - 800 Planux Lux Monitors Central Porter Switchboard

**Glasgow, Scotland, Southern General Hospital**
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1.323 color Videocom monitors complete with CCTV system

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Simplebus TOP and CCTV System
1104 Planux

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