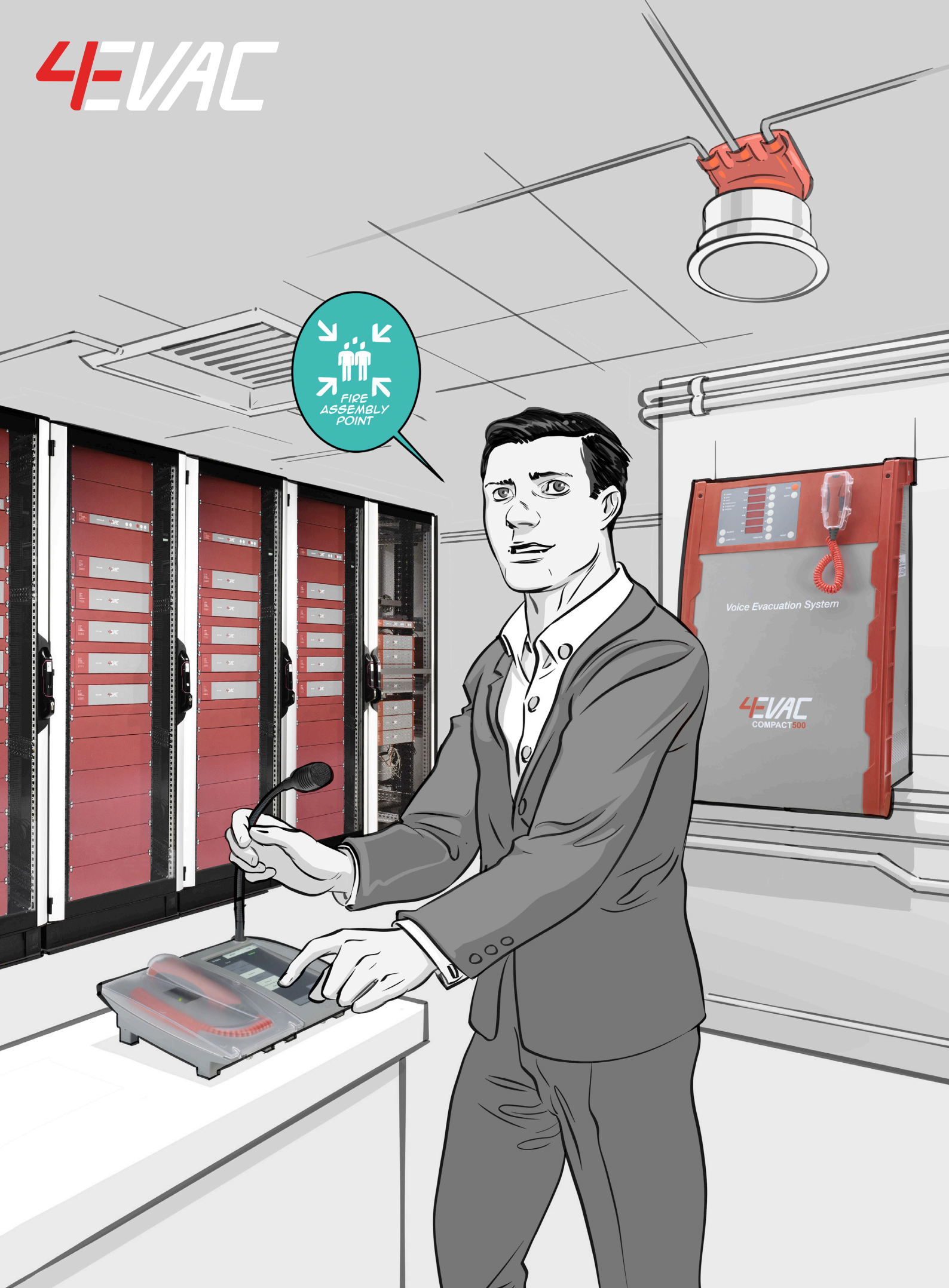


4EVAC



INTRO

Combining over 30 years experience in Voice-Alarm manufacture, 4EVAC delivers a new class of Voice-Alarm Control and Indication Equipment solutions. Based in Rotterdam, 4EVAC is a trading division of Hacousto Holland BV. Headed by Albert van der Hout and his team, 4EVAC is committed to providing cost-effective VACIE systems that break the mould of traditional solutions.

Our mission: Supplying a modern generation of products that are based on a 'plug in and play' principle.

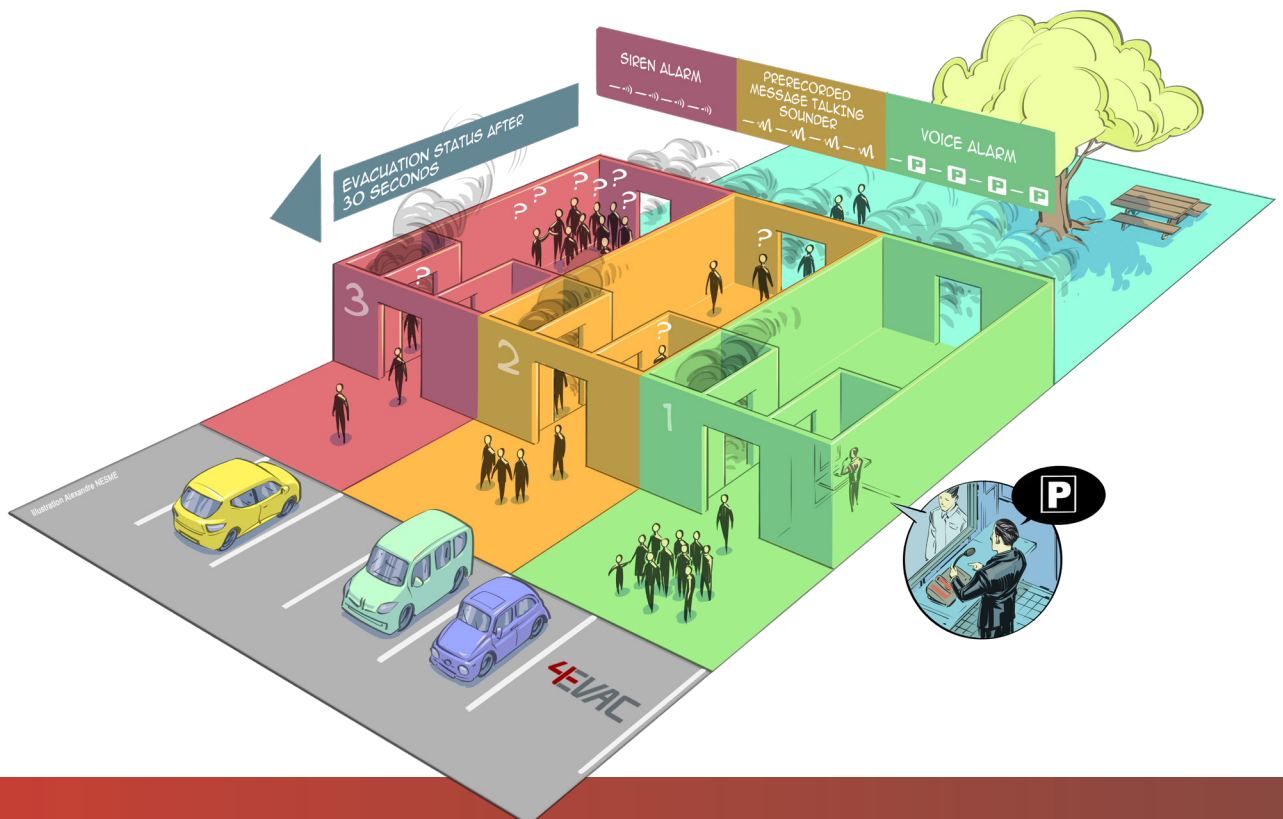
Offering systems that are as well as compact as modular, 4EVAC has designed it's products to meet the demands of installers and users alike. Demystifying the traditional 'rack-mounted' systems that rely on complex configuration, 4EVAC has made IMPACT VOICE ALARM SYSTEM range of products with remote controlled zone-expanders for both simplified zone switching (IMPACT-SW) and for complex Multi-Media applications (IMPACT-MM).

Set apart by it's design the Compact500, offers a lean design footprint and makes for lean, cost effective installation and operation. Comprising self-contained compact Wall-mounted Control and Indicating Voice-Alarm panels, the C500 offers a 'mean' and powerful solution, providing an advanced digital audio-distribution on a networked VACIE solution.

Designing and manufacturing it's products in Europe to rigorous specifications, 4EVAC delivers unparalleled quality and reliability. Fully compliant with the EN54-16 certification, for additional peace of mind all 4EVAC products are third party approved and certified to all European standards including: EN54-4, EN54-16, EN54-17, EN54-18, EN54-24, CB, EMC and UKCA.

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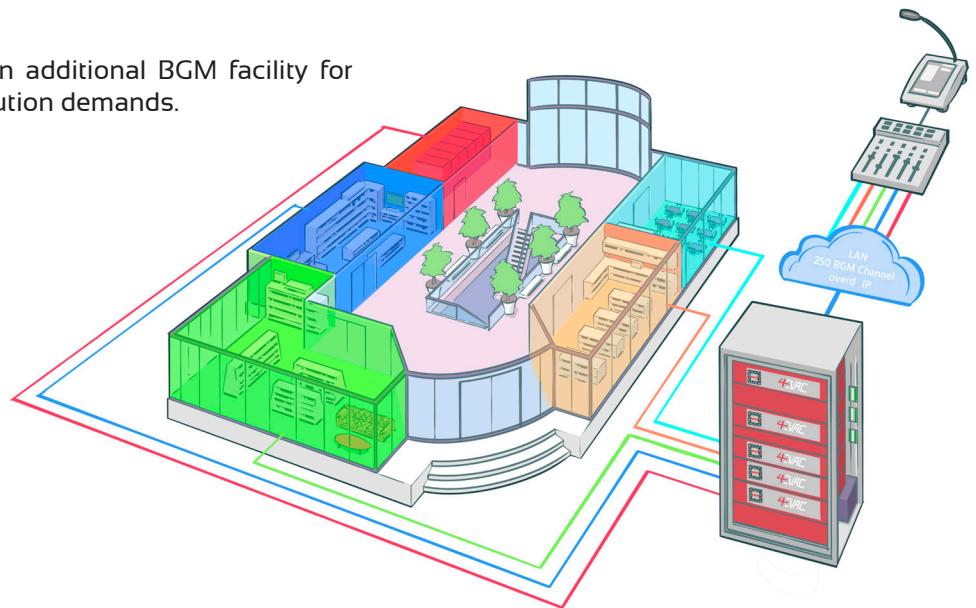
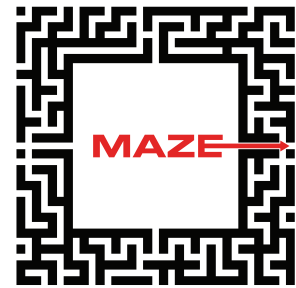
Voice-Alarm WWW.4EVAC.COM Manufacturer

IP-BROADCAST NETWORK

Impact Multi-Media (Impact-MM) system features 4EVAC's proprietary MAZE protocol: audio-over-IP transport platform.

Impact MM, equipped with MAZE network cards, enables Ethernet ports, through which the Voice Alarm system has access to 250 high quality, low latency audio channels over IP. Multiple sites with individual Voice Alarm installations can transmit and receive simultaneous background music programs via LAN. Built-in 100Mbps switch allows for point-to-point connections, without use of 3rd party switches or routers.

The MAZE IP broadcast network is an additional BGM facility for most demanding modern audio distribution demands.



LOCAL NET

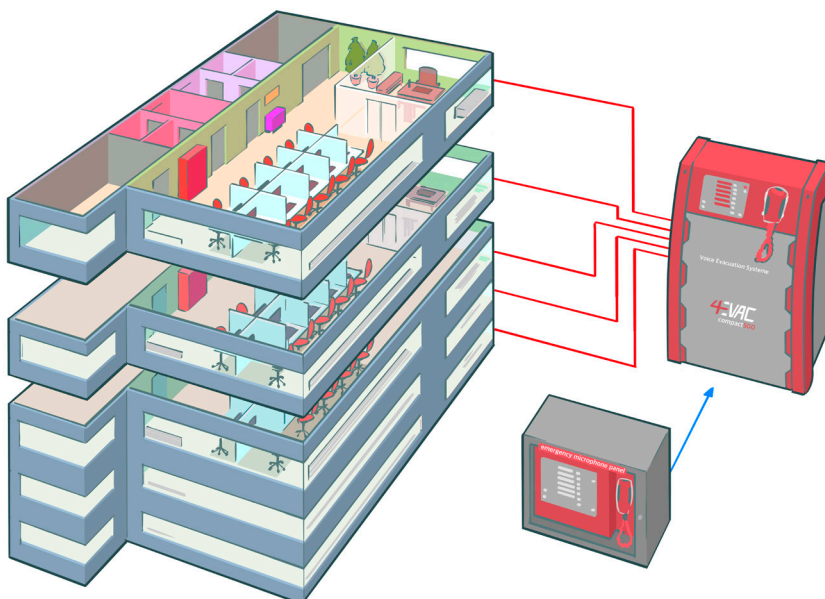
Local Net (L-Net) works as daisy-chain bus between the main system unit and remote network devices, such as paging consoles or additional GPIO interface.

L-Net capacity of each main system unit is limited to the following:

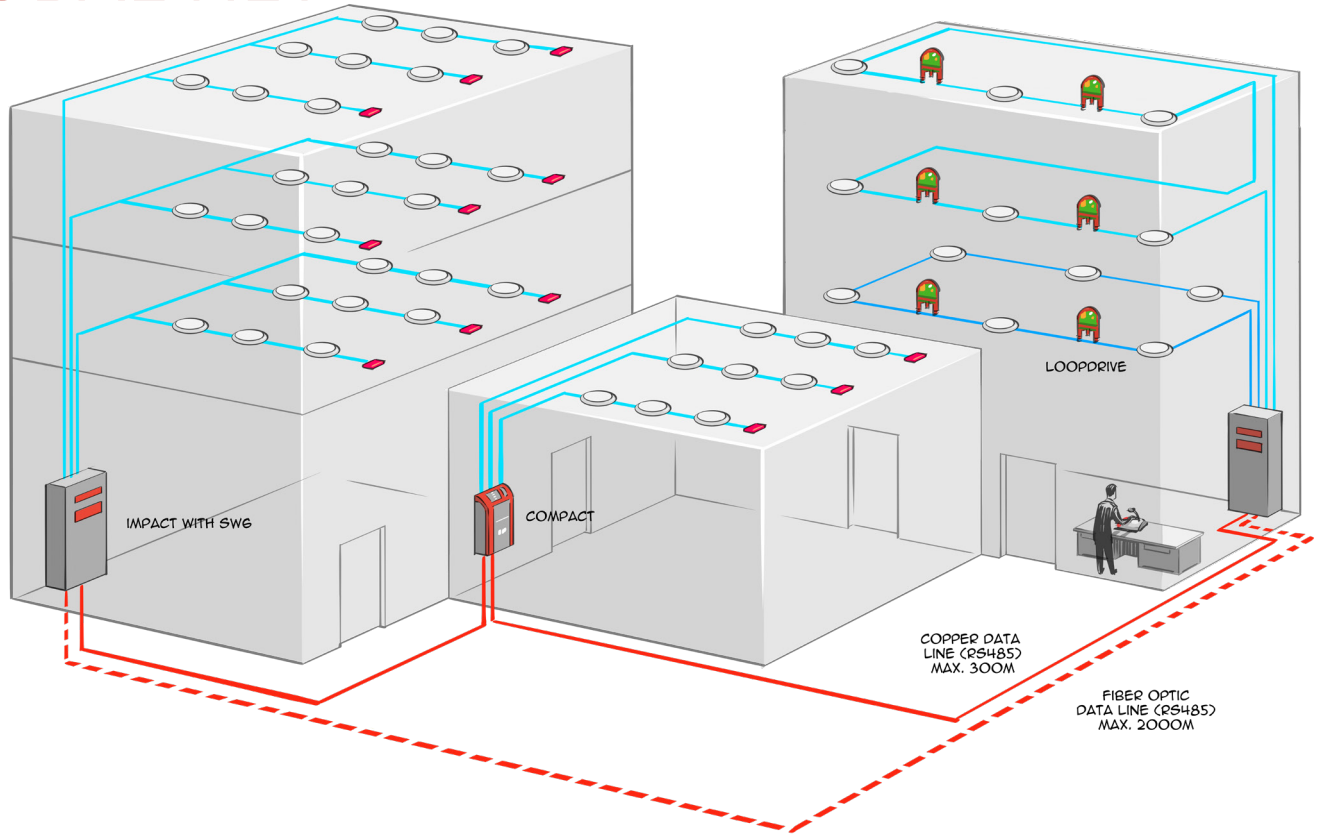
- maximum 8 devices per port,
- maximum 16 devices per main unit

L-Net is used to move interfaces and control panels from the central system location to remote control points. Local network is fully monitored and can be set up in a redundant-ring topology, providing two secured paths to the remote device.

Maximum point-to-point distance over CAT5 cable is 250 meters, with extension possibility up to 2000 meters over multimode optical fiber.



GLOBAL NET

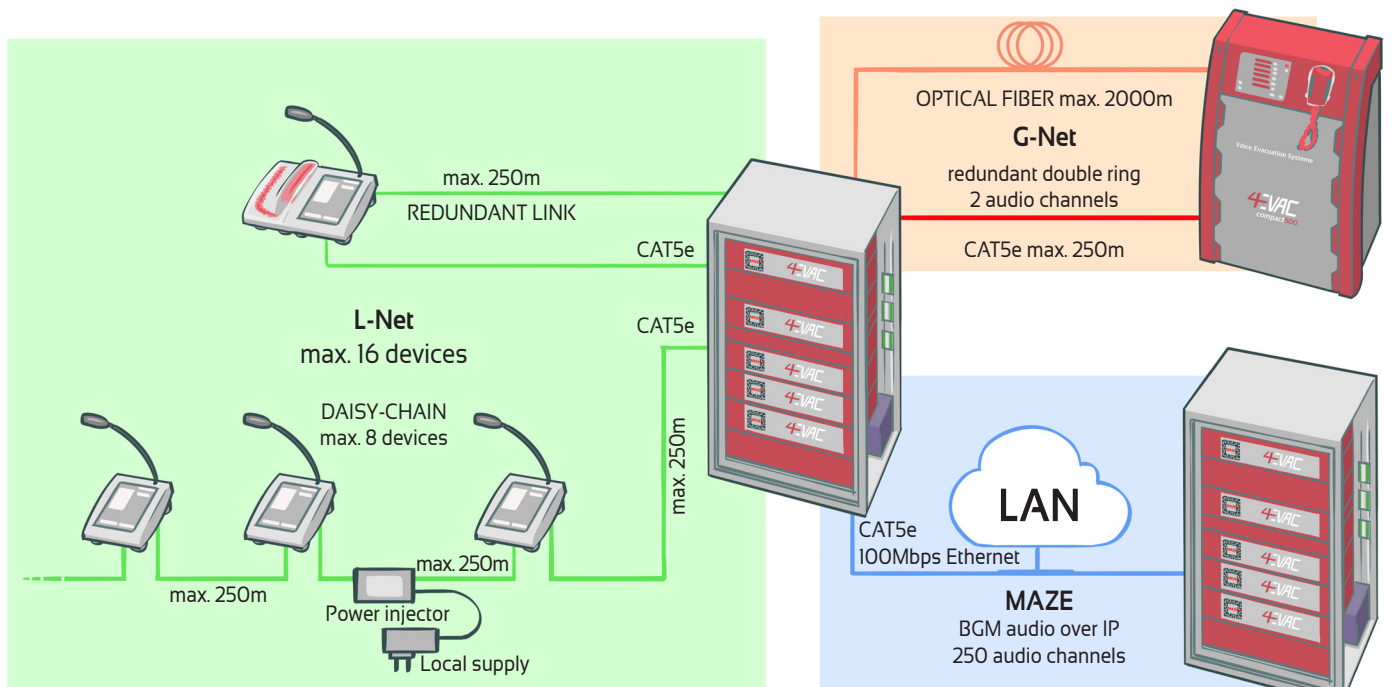


Global Net (G-Net) is a redundant network ring where multiple system controllers may be connected into one, fully transparent system. It is used to reliably synchronize data between all connected locations.

G-Net works as a redundant double ring between controllers which keeps the global system intact in case of link failure.

Similar to L-Net, maximum point-to-point distance over CAT5 cable is 250 meters, with extension possibility up to 2000 meters over multi mode optical fiber.

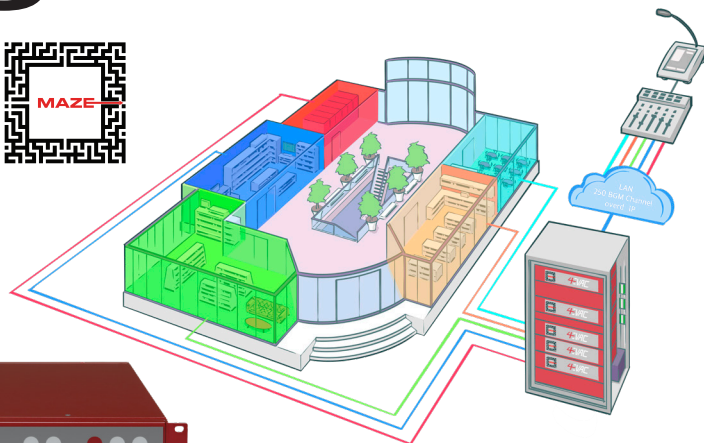
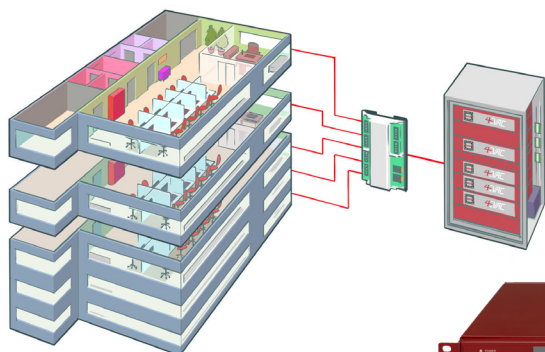
Total capacity of the network equals 254 devices, including main system controllers and peripherals, such as microphone stations.



IMPACT SW

VS

IMPACT MM



IMPACT Switching (SW)

4EVAC **Controller** is the head unit of the 19" rack mounted Impact Voice Evacuation System. The Controller covers complete EN54-16 certified functionality, as well as a variety of features essential to Public Address applications.

4EVAC **Controller** incorporates 16 monitored contact inputs; 8 GPO, 4 relay outputs, 2 analogue audio inputs and 2 outputs. In addition, local network interfaces for max. 16 local peripheral devices (e.g. mic consoles) and 2 global network ports for interconnecting multiple systems in a redundant ring topology are included.

The **Controller** is designed to work with 4EVAC DCA2.500 power amplifiers over a 4EVAC proprietary AMP LINK protocol. The Controller can also be easily integrated with any third-party PA/VA power amplifier.

Unique are the external 4E-SW6 remote switching devices that features 6 lines EVAC/ALERT or PAGING/BGM with incorporated line monitoring.

IMPACT SW can grow up to 1000 speaker lines easily.

IMPACT Multi-Media (MM)

MAZE is a retro-fit network engine for the Controller and provides full network capabilities on-top of the mandatory Voice-Alarm functions of the Controller

i-Controller has similar functional options like impact Controller with L-net and G-net Interfaces, GPO, Evac-in. Unlike Impact the i-Controllers in combination with i-DCA2.500 uses 4E-AM448 a DIN-rail mounted surveillance box with 4 amplifier inputs and one backup amplifier input which is routed to 4 A/B loudspeaker outputs.

i-Controller is the brain of the maze engine modules which is equipped with enabled Ethernet ports and MAZE engine installed. i-Controller has therefore direct access to 250 audio channels transmitted within the MAZE network.

i-Controller can either transmit 2 BGM channels over IP to the MAZE Network or it can send the standard analog BGM inputs to the global network. Standard analog BGM inputs can be used as priority BGM channel over other channels. Signal from local analog BGM inputs that is broadcasted by i-Controller to the LAN, can be received by other MAZE modules like the i-DCA and the i-Matrix.

Each of the i-Controller is configurable by the maze manager where static IP can be assigned as well as to create a maze setting for Evac manager which helps to simplify the configuration by providing an optimal solution for the users.

IMPACT MM can grow up to 32 high-power speaker lines with A/B surveillance, shared back-up and line surveillance high and low impedance loudspeakers.

EXPANDER

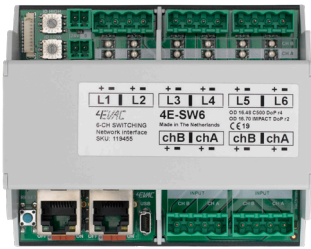


Impact Expander is an optional component of the 19" rack mounted Impact-SW and Impact-MM Voice Evacuation System. Expander is an additional network hub for the L-Net devices, such as microphone stations.

IMPACT SW

VS

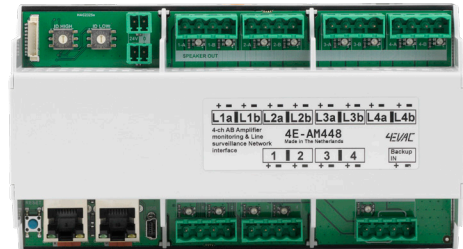
IMPACT MM



4E-SW6

4E-SW6 is a DIN-rail mounted 100V audio matrix with 2 inputs and 6 outputs, dedicated for both 4EVAC Compact and Impact systems.

4E-SW6 has two 100V audio inputs (CHA, CHB) which connect directly to amplifier outputs. 4E-SW6 expands the number of independent loudspeaker lines with individual surveillance and short-circuit isolator units (Loopdrive). Each loudspeaker line can handle up to 200 W load and can be assigned as a separate individual zone. One input can accept maximum 500 W of power, this is also the limit for total load of all 6 output lines together. 4E-SW6 is controlled by the main system controller (Compact 500 or Impact Controller) via L-Net, receiving in real time routing information for each output line in order to connect to channel A, channel B or internal bus C.



4E-AM448

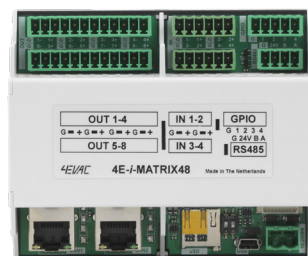
4E-AM448 is a DIN-rail mounted surveillance box with 4 amplifier inputs and 4 A/B loudspeaker outputs, dedicated for i-Controller and i-DCA2. 4E-AM448 is also the backup amplifier manager, and therefore features additional backup amplifier input, which is shared by all 4 primary amplifier inputs.

Each amplifier channel is split internally into 2 loudspeaker circuits: A and B.

AMP 1	LINE 1A	LINE 1B
AMP 2	LINE 2A	LINE 2B
AMP 3	LINE 3A	LINE 3B
AMP 4	LINE 4A	LINE 4B

Each of 8 loudspeaker output circuits is monitored individually.

With the MAZE network users have the ability to stream multiple digital audio channels over IP. With the help of *i-Matrix* users now have the flexibility to expand the MAZE audio streams, total of 6 IN X 10 OUT audio channels. The *i-Matrix* is a cost effective solution when the users needs extra inputs to the MAZE network without the need of extra output power that an additional *i-DCA2.500* would offer. Beside that, the *MATRIX* is also available without the MAZE engine and featurus powerful pre-and post audio processing such as, parametric EQ's, noise-sensing mic input and powerful line delay of up to 30 seconds per output.

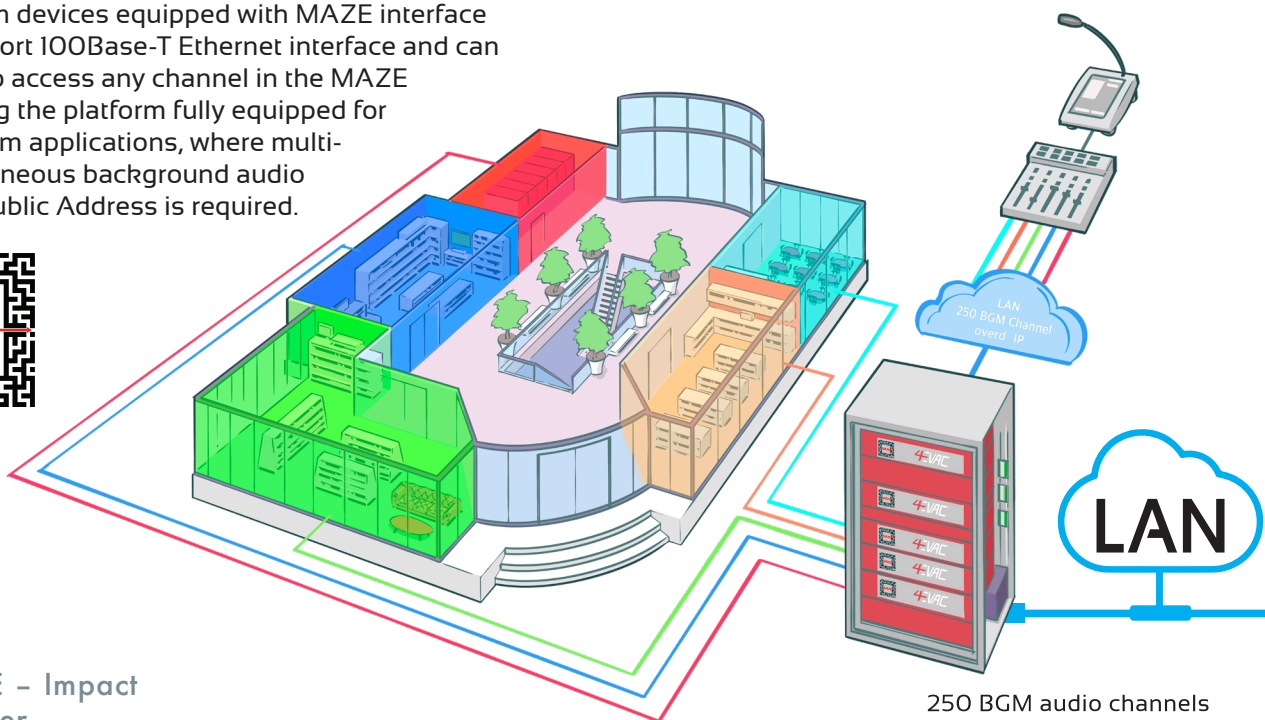


4E-MATRIX - 4E-i-MATRIX



Impact MM Voice Alarm System offers a palette of EN54 certified solutions for Audio over IP applications. Compared to the Impact SW system, Impact MM adds a multi-channel IP streaming network platform. This proprietary 4EVAC protocol, called MAZE, provides low-latency, lossless audio over IP broadcast, where up to 250 audio channels may be distributed within Local Area Network (LAN) for multi-stream background music distribution, with uncompromised quality.

Configurable via PC, MAZE network offers two-way audio routing between components of Impact MM Voice Alarm System, each having continuous access over the LAN to multiple digital audio channels. All channels can be individually filtered, delayed, mixed, and volume controlled. Impact MM Voice Alarm devices equipped with MAZE interface feature a dual-port 100Base-T Ethernet interface and can be configured to access any channel in the MAZE network, making the platform fully equipped for large Voice Alarm applications, where multi-channel simultaneous background audio broadcast for Public Address is required.



4EVAC MAZE – Impact MM audio over IP platform

Global audio channels	250
Local audio channels	32 per device (receive + transmit)
Local analog in/out	2 input + 2 output per device
Sampling frequency	48 kHz
Bit resolution	16 bit / sample
Built-in processing*	
• Mix	up to max. 32 channels
• Volume control	-60 ... +6 dB
• Dynamics	gate with adjustable threshold -60 ... 0 dB
• EQ	5-point parametric EQ with pre-defined IIR filters
• Delay**	max. 16 seconds per channel
Max. number of devices	3000
Latency	max. 10 ms***
Network requirements	100/1000Mbps Ethernet all devices in the same LAN

Thanks to the dual port Ethernet switch built-in as a standard, Impact MM components can be connected directly to each other, without additional switch or router in between.

Every 4EVAC device with MAZE interface and analog audio inputs is able to stream its local audio source to any of 250 available channels within the same LAN. Audio streams are transmitted in lossless, uncompressed format, with minimum latency. Audio can be then received by any system controller or amplifier connected to MAZE network. Additional audio signals can be streamed in and out the network via the i-MATRIX streaming DSP.

4EVAC systems are primarily designed for Voice Alarm, therefore Impact MM features provided by MAZE can be installed as an optional facility, additional to the core functionality of Voice Alarm compliant with EN54 group of safety standards. Architecture and processing embedded in 4EVAC products will always grant highest priority to the mandatory Voice Alarm functions.



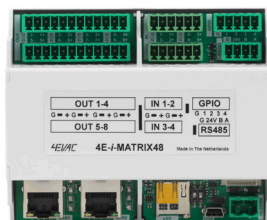
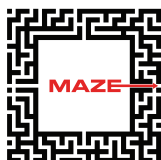
i-CONTROLLER

Impact i-Controller, the brain and network hub of Impact MM Voice Alarm System. Thanks to enabled Ethernet ports and MAZE engine installed, the i-Controller has direct access to 250 audio channels transmitted within the MAZE network. i-Controller can receive simultaneously 2 BGM channels over IP, while the standard analog BGM inputs are still available. Signal from local analog BGM inputs can be also simultaneously broadcasted by i-Controller to the LAN, to be received by amplifiers and other i-Controllers .



i-DCA2.500

Impact MM amplifier, the i-DCA2.500, is the networked MAZE variant of the DCA2.500. Like i-Controller, the i-DCA2.500 has dual-port Ethernet interface with built-in 100Mbps switch and MAZE engine, which opens access to 250 audio BGM channels available in the MAZE network. Each i-DCA2.500 can also broadcast two digital audio streams to the MAZE network from it's local BGM analog inputs. Thanks to dual-port switch onboard, multiple i-DCA2.500 units can be daisy-chained with i-Controller inside the rack, without extra switches or routers. i-DCA2.500 can be used as a standalone amplifier for low priority PA sub-systems, sharing the same network with Voice Alarm rack.



i-MATRIX

4 x 8 balanced audio matrix with DSP, with additional with 2in/2out streaming to and from IMPACT-MM system (total 6 IN x 10 OUT). Built-in message player with micro SD card storage, 4xGPIO, RS485, USB port, 100Mbps dual Ethernet port



i-CMT

General purpose IP paging station, with MAZE engine and full access to all Impact MM zones and sources. i-CMT with 2-port Ethernet switch (easy daisy-chaining) can be powered from local switch via PoE. Each i-CMT can broadcast two audio streams: one from the local gooseneck microphone and another from local AUX 3.5mm input jack.*

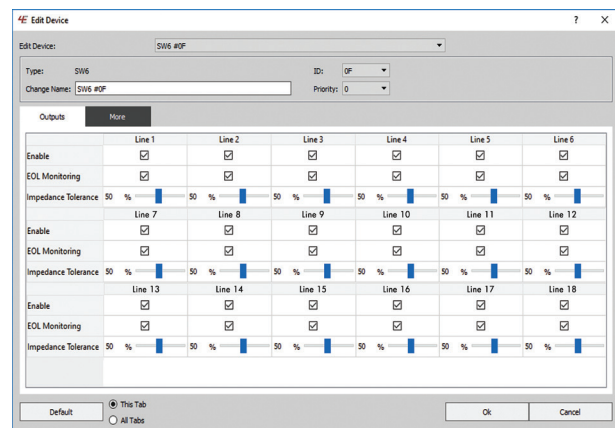
Built to meet the highest expectations, still remain user friendly, flexible and cost effective, **IMPACT** sets a new course for the **Voice Alarm System industry**.

The **IMPACT** system consists of only two chassis, one controller that transfers the network data stream to the amplifier and a **DCA-2.500** amplifier completed with at least one **4E-SW6** module. The **4E-SW6** is an intelligent 2-into-6 Remote Controlled Zone Expander and zoning module that subdivides broadcasts into a multiple of six sub-areas. The **4E-SW6** provides 'built-in' loudspeaker monitoring.

Now it is time to think smart and combine battery charger capabilities with the integrated power amplifier. The **DCA-2.500** amplifier not only drives the system up to an impressive 1000 Watt, but it also charges and surveys a scalable battery pack for up to three 1000 Watt amplifiers. This not only reduces hardware and rack-space but most importantly, it decreases installation and operational costs whilst increasing reliability. Simple to configure with it's easy to use GUI tool guiding software you create a systems solution with multiple Voice-Alarm zones, paging-zones and music areas in minutes. High quality DSP-processing guarantees **4EVAC Manager** is an overall programming application tool that provides a comprehensive application specific interface to your **IMPACT** and **COMPACT500** networked system. The software provides an overview of your overall system status and makes system operation very easy through an intuitive and secure user interface configuration tool that makes complex programming and service easier than ever.

4EVAC Manager programming application for **IMPACT** and **COMPACT500** system provides:

- Quick download and upload of the system configuration;
- Update of firmware and configuration over the Network to all-devices (Each **CONTROLLER** or **COMPACT500** holds a complete copy of the system configuration file);
- Flashcard exchange protocol for quick system update/ programming in case of computer access disability or emergency purpose.



CONTROLLER / Audio matrix

The CONTROLLER deals with inputs according to their own signal priority table, distributing the audio using the digital AMP-link module, which handles two prioritised audio streams through a dynamic assignment technique, to a maximum of 16 DCA-2.500 amplifiers per CONTROLLER.



EXPANDER / L-Net expander

4EVAC Controller-Expander is an optional component of the 19" rack mounted Impact Voice Evacuation System. The Controller-Expander is identical to the Impact Controller with significant hardware and functional limitations.



DCA2.500 / 2 x 500 Watt Power Amplifier

4EVAC DCA2.500 is a 2x500W transformer-less (Direct-drive) 100V power amplifier with integrated power supply and 24V battery charger. Designed and certified in full compliance with EN54-4 and EN54-16, DCA2.500 is an ideal component of a voice evacuation system or public address installation, where high reliability and safety is required.



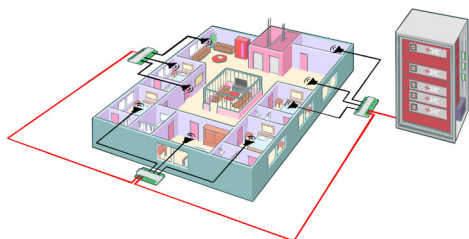
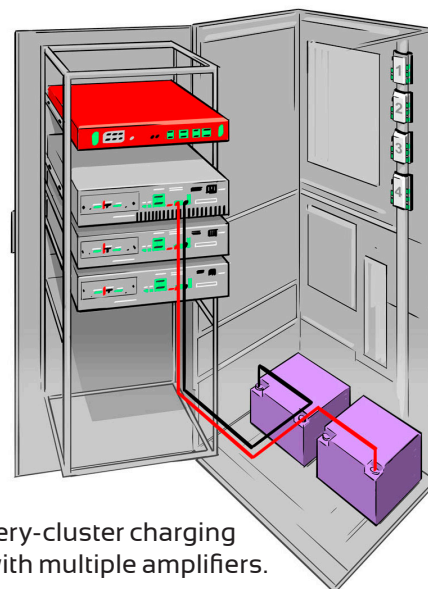
IMPACT Cluster Charging

The EN54-16 and EN54-4 standard certified, lightweight DCA-2.500 D-Class amplifier provides powerful audio amplification. It delivers 2 x 500 W outputs and is housed in a 2U 19-inch rackhousing. Multiple DCA-2.500 amplifiers can be stacked together sharing a single battery pack, providing back-up power and collective recharging capabilities.

The amplifier has been designed along 'modern-art' lines and features a transformer-less design with not only a direct 100 V output for distributed loudspeaker systems, but also drives into a low-impedance source from 8ohm and up. With cutting-edge design, the DCA-2.500 sets a standard for the most demanding projects with demanding audio architecture.

Each DCA-2.500 is equipped with a powerful 4A battery charger capable of charging into a single 100Ah battery set.

A Master/Slave system architecture, dictated by the AMP- LINK, regulates the battery-cluster charging procedure and status control. This way a single, larger battery pack can be shared with multiple amplifiers.



Remote Controlled Zone Expander module

The 4E-SW6 Remote Controlled Zone Expander module is a simple and cost-effective way to distribute various loads over a multiple of 6-speaker lines / zones.

The IMPACT concept is simple yet powerful:

When combined with 4EVAC's DCA- 2.500, or other third-party single high- power two-channel amplifier, the 4E-SW6 switching module generates simultaneous EVAC and ALERT announcements or paging messages and background music (BGM) into six switched speaker lines. By adding more 4E-SW6 switching modules, it is possible to produce any multiple of six speaker lines, which can be grouped in virtual paging zones.

Powered by a single DCA-2.500 two channel amplifier, the 4E-SW6 switching module provides dual-simultaneous, uninterrupted signals for any combination of paging, BMG, EVAC and ALERT for six manageable speaker lines. A third internal channel is used by the surveillance tone generator to continuously check the integrity of the cable and detects any faults. The third internal channel can also be addressed if the speaker lines need to be silenced. The transmission-line detection is based on End-Of-Line (EOL) measurement. The 4E- SW6 generates a pilot tone that feeds into a tuned EOL. This way each speaker line of the 4E-SW6 is monitored for line-short and line-open faults. The 4E-SW6 switching module is easy to install. It comes in a quick-snap DIN- rail housing and is supplied with speaker line connectors that directly accept external field cabling up to 2.5 mm 2/12 AWG. Each speaker line is able to support loads from as small as 1W to as big as 200 W, with a total load of 500W per 4E-SW6. This 'dynamic-load-distribution' makes IMPACT the most flexible and versatile VACIE system in the industry and optimises the use of all modules on the network.

4E-FMTC is a desktop/wall mounted microphone station with touchscreen panel. It can address up to 255 zones and trigger every source or message available in the entire system. **4E-FMTC** features gooseneck microphone for general paging and (behind transparent fireman's door) separate, fully monitored fireman microphone.



4E-FMT is a desktop/wall mounted microphone station with touchscreen panel. It can address up to 255 zones and trigger every source or message available in the entire system.



4E-FM is a desktop or wall mounted emergency microphone station with high priority and fault surveillance. It can address any zone or set of zones in the entire system, including all call, for highest priority voice emergency. **4E-FM** includes handheld microphone and monitored PTT TALK button.



4E-FMWB, is a low-cost and effective networked Fireman Microphone wall-box, easily integrates with both **COMPACT** and **IMPACT Voice-Alarm** systems.



4E-CMP, 6-zones Push-button controlled paging console able to address commercial messages within the **COMPACT** and **IMPACT** architecture.

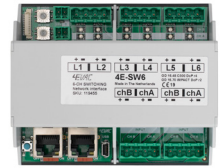


4E-CMT touch-screen controlled paging console able to address commercial messages within the **COMPACT** and **IMPACT** architecture.

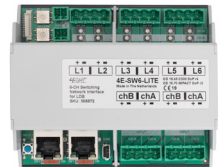
4E-i-CMT touch-screen controller paging console *i-CMT* general purpose IP paging station, with MAZE engine and full access to all Impact MM zones and sources. *i-CMT* with 2-port Ethernet switch (easy daisy-chaining) can be powered from local switch via PoE. Each *i-CMT* can broadcast two audio streams: one from the local gooseneck microphone and another from local AUX 3.5mm input jack.



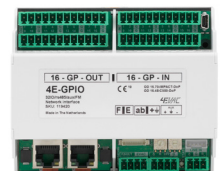
4E-SW6 is a DIN-rail mounted 100V audio matrix with 2 inputs and 6 outputs, dedicated for both 4EVAC Compact and Impact systems. 4E-SW6 has two 100V audio inputs (CHA, CHB) which connect directly to amplifier outputs. 4E-SW6 expands the number of independent loudspeaker lines with individual surveillance and short-circuit isolator units (Loopdrive). Each loudspeaker line can handle up to 200 W load and can be assigned as a separate individual zone. One input can accept maximum 500 W of power, this is also the limit for total load of all 6 output lines together.



4E-SW6-LITE has been developed to be used with Loopdrive LDB on the outputs only.



4E-GPIO is a DIN-rail mounted I/O interface with input surveillance and a redundant network link, dedicated to the 4EVAC system network. It features programmable 16 in / 16 out pins, mandatory EVAC and FAULT status output contacts, a monitored analogue audio input and a monitored RS-485 interface for integration with third-party external control panels.

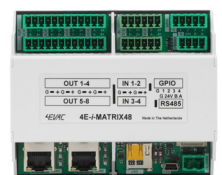


4E-AM448 is a DIN-rail mounted surveillance box with 4 amplifier inputs and 4 A/B loudspeaker outputs, dedicated for Impact SW and Impact MM voice evacuation systems. 4E-AM448 is also the backup amplifier manager, and therefore features additional backup amplifier input, which is shared by all 4 primary amplifier inputs.



4EVAC (i)-MATRIX

With the MAZE network users have the ability to stream multiple digital audio channels over IP. With the help of i-Matrix users now have the flexibility to expand the MAZE audio streams, total of 6 IN X 10 OUT audio channels. The i-Matrix is a cost effective solution when the users needs extra inputs to the MAZE network without the need of extra output power that an additional i-DCA2.500 would offer. i-matrix is a 4 x 8 balanced audio matrix with DSP, i-matrix has direct access to the MAZE network 2 In / 2 out audio streams to and from MAZE devices.



The **4E-FPI** and **4E-RPI** L-Net power injectors provides additional power injection point to the L-NET (Local Network bus of 4EVAC Voice Evacuation System), where an auxiliary DC power supply may be connected. Thanks to the L-net power injector, more L-Net devices with relatively high power consumption (such as touchscreen paging microphones) can be installed on the same CAT5e cable, devices can be installed in larger distances from the central equipment and further away from each other.

4E-FPI: Fieldmount Power Injector
 4E-RPI: Rackmount Power Injector



Fully compliant:

In order to ensure peace of mind for both the installer and end user, 4EVAC products are third party approved and certified to relevant European standards.

4EVAC approvals go beyond the minimum requirements including EN54-16:2008, EN54-4:2006, and EN50130-4:2011. CPR number : 0560-CPR-152190001/00.

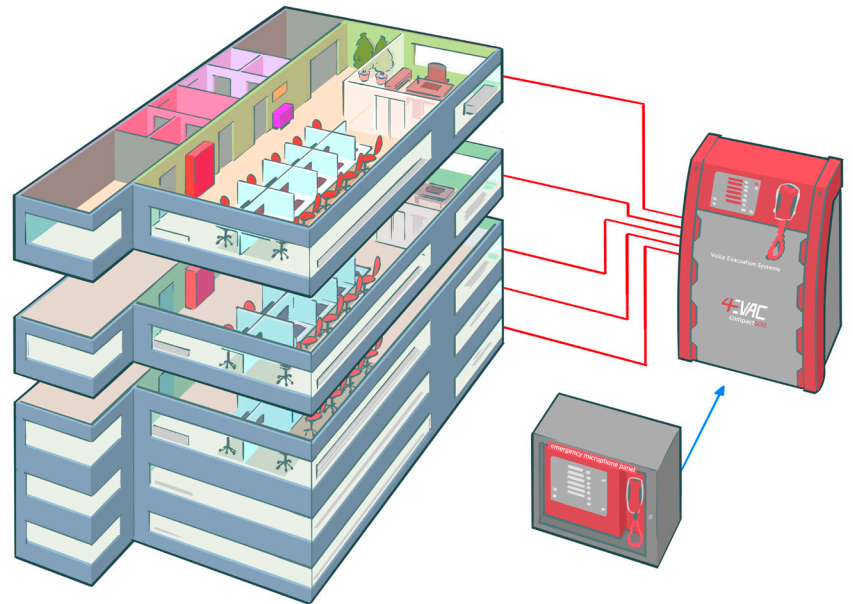


Compact 500 is equipped with a wide range of pre- and post-processing software modules such as volume controllers, routing, mixing, switching and prioritizing. Processing components as; equalisers, limiters and delay-lines make Compact 500 fit for the job.

The integrated local Message storage modules (WAV-format), with a total storage capacity of 16 audio files, can be distributed simultaneously over the 6 local output lines serving phased-evacuation. The status of the digital audio message storage and of the messages themselves are monitored.

All message-storage modules are synchronised between multiple Compact 500 output lines for synchronized large area incident warning.

4EVAC new range of products stands for lower costs of installation, maintenance and ownership. Designed to meet from the basic normative requirements up to most demanding needs of engineers, facility managers, building owners and electrical contractors. 4EVAC range of products builds upon the field-proven design culture of experts in de fire-safety and voice-alarm market.



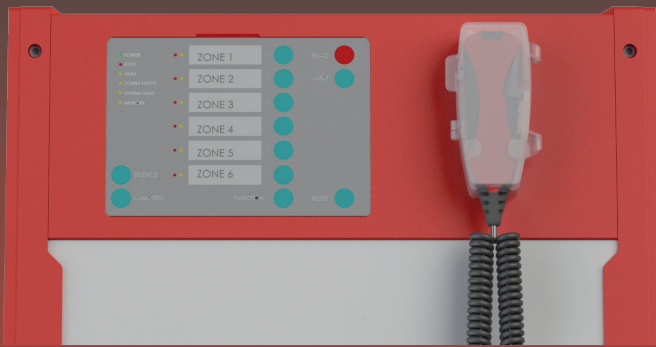
This shows a basic system configuration where the Compact 500 fits perfectly! Serving a high-rise building structure.

Equipped with 6 evacuation zones the wall-box is installed in the main entry area where it can be easily observed and controlled in case of an incident. The frontpanel controls are adequately accessible and the integrated firemens-microphone provides clear vocals into the evacuation zones.

- System configuration**
- Zone 1: Parking area, 85 W (CH-1);
 - Zone 2: Floor 1, 65 W (CH-2);
 - Zone 3: Floor 2, 95 W (CH-3);
 - Zone 4: Floor 3, 100 W (CH-4);
 - Zone 5: Floor 4, 85 W (CH-5);
 - Zone 6: Floor 5, 85 W (CH-6);

- Materials**
- 1 x Compact 500;
 - 3 x DA200;
 - 1 x DA200 (back-up amp);
 - 1 x Battery-set: 38AH.

Control/Indications
& Firemen microphone at access level 2

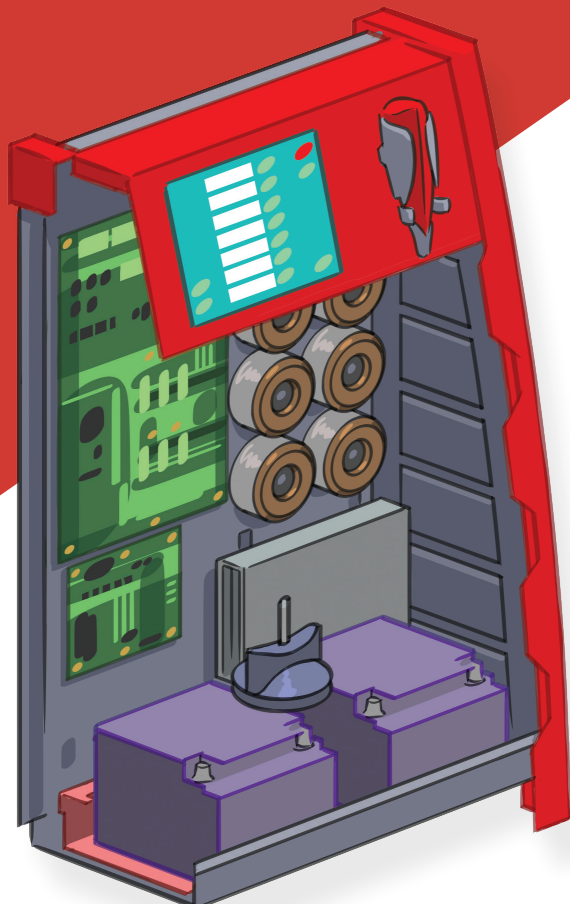


Battery compartment

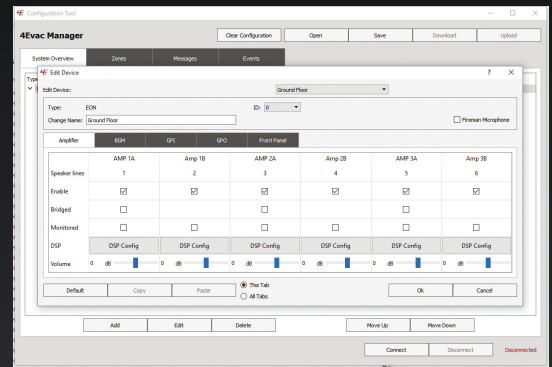
The **Compact 500** comes with a special battery bracket that can hold batteries from a minimum of 12 V/10 AH to a maximum of 12 V/55 AH. The integral battery charger, PSE, has been certified to charged up to 12 V/55 AH within 24-hours.

For a standard fully equipped installation with 3-DA200 amplifiers and a backup DA-200 amplifier, that needs to run for the minimum normative period of 30 minutes on full-load and 24 hours in quiescent state, it requires 12 VDC 38 AH batteries.

In case de **Compact 500** is not fully equipped with the maximum number of DA200 amplifiers and/or not loaded to the maximum extent of 600 W, there is a choice of batteries in the range of 12 V/10 AH to 12 V/55 AH, or when longer selfsupporting periods are required, i.e. when there is no maintenance contract in place.



4EVAC Manager

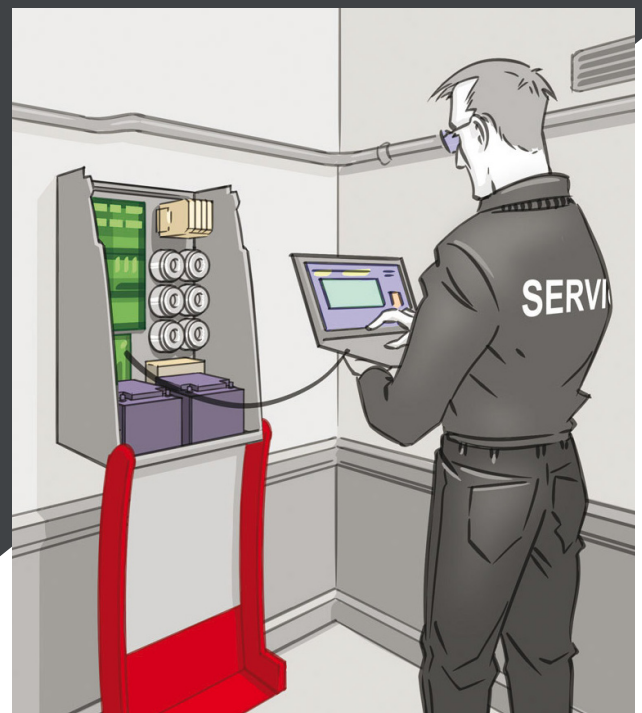


4EVAC Manager

4EVAC Manager is a management application tool that provides a comprehensive application specific interface to your **Compact 500** networked system. The software provides an easily accessible view of your overall system status and makes system operation very easy through an intuitive and secure configuration tool that makes complex programming and service easier than ever.

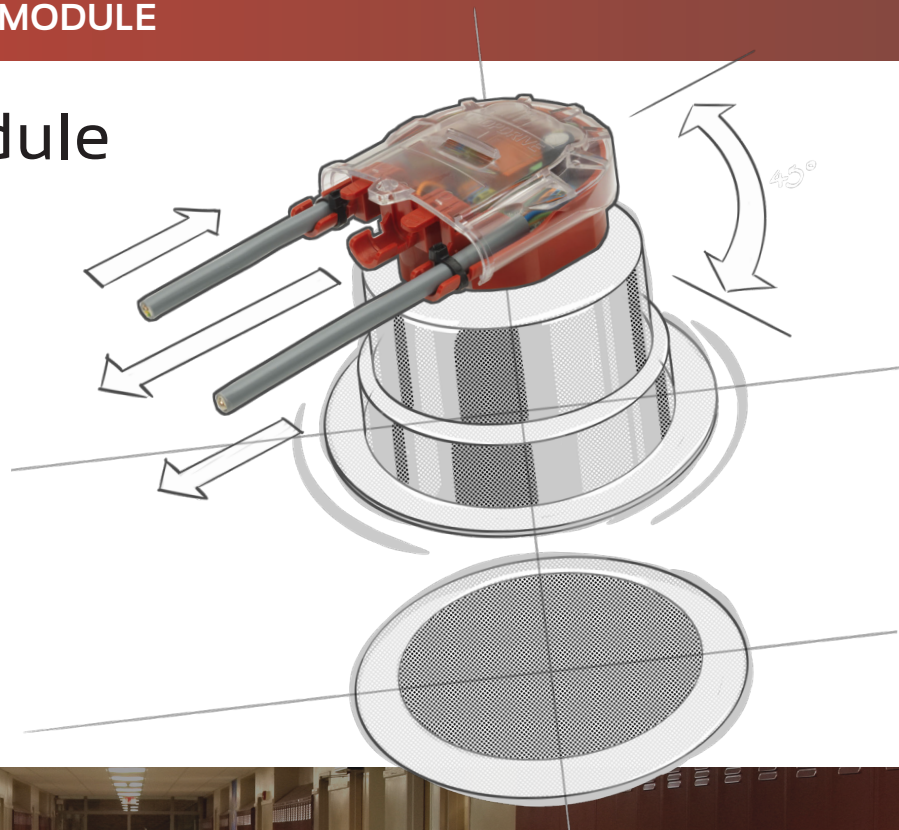
4EVAC Manager is the ideal addition to your **Compact 500** system management in complex facilities.

- Configuration software supports all integrated system components;
- Firmware upgrades in the field;
- Flashcard exchange protocol for quick system update / programming without the direct need for a computer.



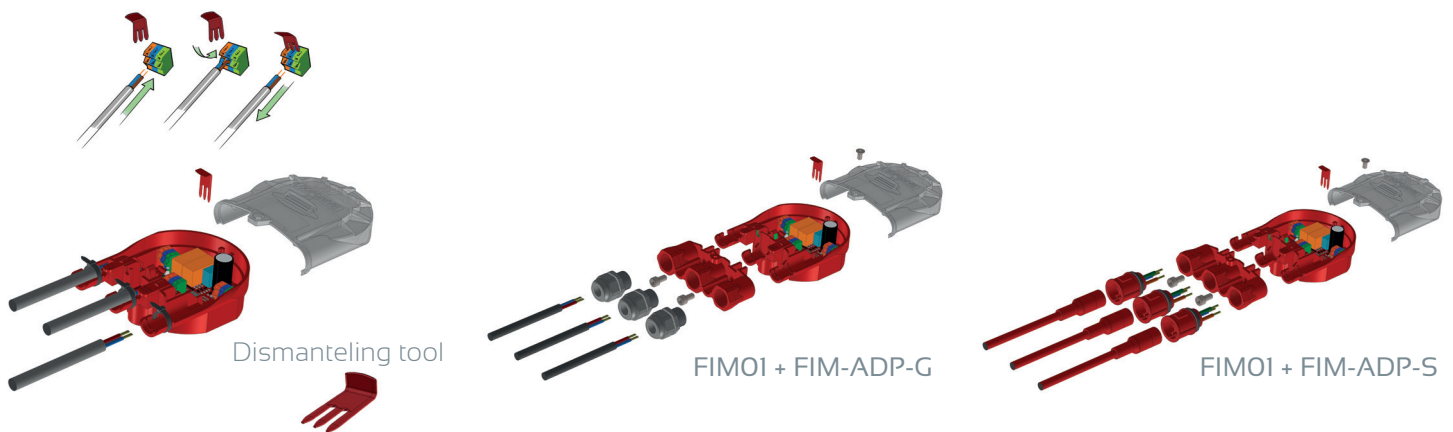
Fault Isolator Module

The loudspeaker line isolator **Fault Isolator Module (FIM)** is the successor in our range of loudspeaker loop-isolator devices that are using our patent technology to deliver a higher level of availability of evacuation loudspeaker lines that are installed according to the return-loop principle. A loudspeaker failure in a faulty section between any two **FIM**'s in the loop is automatically detected and isolated in order to ensure maximum availability of the remaining loudspeakers on that same loop. The FIM protects the loop integrity against any open and wire-to-wire short circuits.

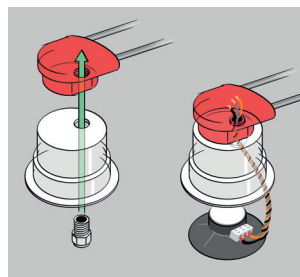


**DETECT, LOCATE AND ISOLATE IN LESS THAN 4 SECONDS...
WE BROADCAST!**

Loopdrive assembly

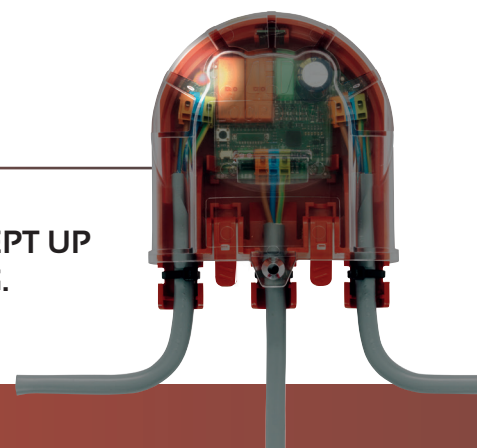


The T-branch output of the FIM interfaces directly with the input of the single loudspeaker through the fixing-hole of the Loopdrive housing and the compression gland.



No extra cable!
No extra junction box!

THE FIM IS EQUIPPED WITH WAGO PUSH-TERMINALS THAT ACCEPT UP TO 2,5 MM² CORE INSTALLATION CABLE. A LOOPDRIVE HOUSING.



LOOPDRIVE – FAULT ISOLATOR MODULE

ALTERNATIVE STYLE LOOPS: The FIM is used at it's T-Branch to feed a single loudspeaker or a group of loudspeakers to limit the on-going effect to the devices on the main loop.

NOTE: The maximum number of loudspeakers between FIM's is not limited within the maximum LOOP-load of 800 W, however, National standards may limit the amount of loudspeakers between Isolators.

Loopdrive **FIM-VC** and Loopdrive **FIM-RC** are two modules that allow differentiated control between background music and zone calls using existing 2-wire infrastructures.

The **Loop Drive Booster (LDB)** is the heart of the Loopdrive system. This device drives up to 200 FIM's over a dual-core cable. A single **LDB** can pass 800 W of audio signal from an amplifier and injects at the same time DC to the loop for powering and managing FIM modules. One amplifier channel can be split into multiple **LDB** in parallel, creating multi-loop with individual surveillance for multi-zone paging applications.

The **LDB** clicks on a DIN-rail that provides DC-power and accommodate for the RS485 data connection and General-Fault contact to a maximum of 32-LDB's on a single DIN-rail. Front buttons and indicators allow for quick access to the various functions and indications of the Loopdrive system.

SNIFFER is not only visualizing the various commissioning procedures but also provide streamlined methods for fault-finding and device allocating without the direct need for a digital communication protocol over the 2-wire audio line's. It fulfills the user's needs and expectations by far.

The **FIM-VC** is a T-branch field-isolator-module with integrated volume control for the T-branch speaker load. A pilot-tone send over the speaker line will force the **FIM-VC** into 'override' mode forcing the attached volumecontrole to switch to MAX. audio level.

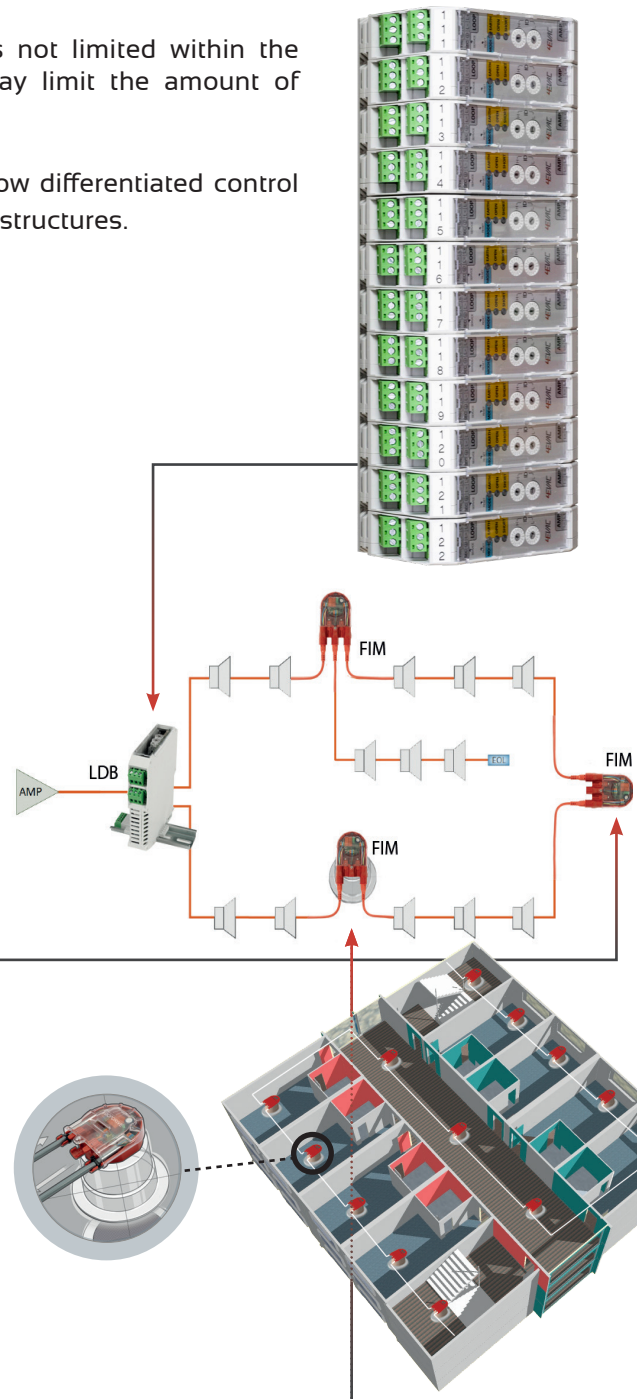
Any local music source connected to the **FIM-VC** through the AUX input will mute.

The **FIM-VC** comes with a 11-step wall-controller. -9/MAX/AUX. The **FIM-VC** volume controller is equipped with an AUX entry for a local audio source that overrides by paging and emergencies.

The **FIM-RC** acts as a remote contact interface that can activate or deactivate a third party instrument or equipment that needs to be triggered during a live-broadcast of an evacuation event.

The **FIM-RC** sits in the LOOP and receives the broadcast audio message. As soon as the broadcast audio message contains a 20 kHz pilote-tone, the on-board relays of the **FIM-RC** will change state into 'override' mode. The state change is latched as long as the pilote-tone is received.

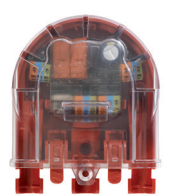
Depending on the function of the third party instrument or equipment, the **FIM-RC** offers two potential free NC and a NO switching contacts.



Single-gang flushmount box (optional) V60



FIM-RC



FIM-VC

Playing backgroundmusic is a necessity for i.e. shopping-malls, restaurants, hotels and fashion stores. But you might not want to have the same level everywhere in the building.

Loopdrive FIM-VC provides you with local volumecontrol of the backgroundmusic in combination with paging-override using existing 2-wire infrastructure.

The FIM-VC can handle up to 50 Watt of loudspeaker load on it's T-branch and provides 8-step volume control plus an AUXILAIRY input for a local audio source. Ideal for shops where they like to select from in-house entertaining feed to their own in-store music player. In case of an emergency, the FIM-VC will automatically override the in-store music player and broadcast the emergency messages coming form the in-house voice-evacuation system.

The FIM-VC follows the Loopdrive concept and acts as an isolator in cause of cable short and/or cable open faults. The override function is triggered by the additional 20kHz carrier that is mixed with the paging/emergency broadcast.

Main benefits:

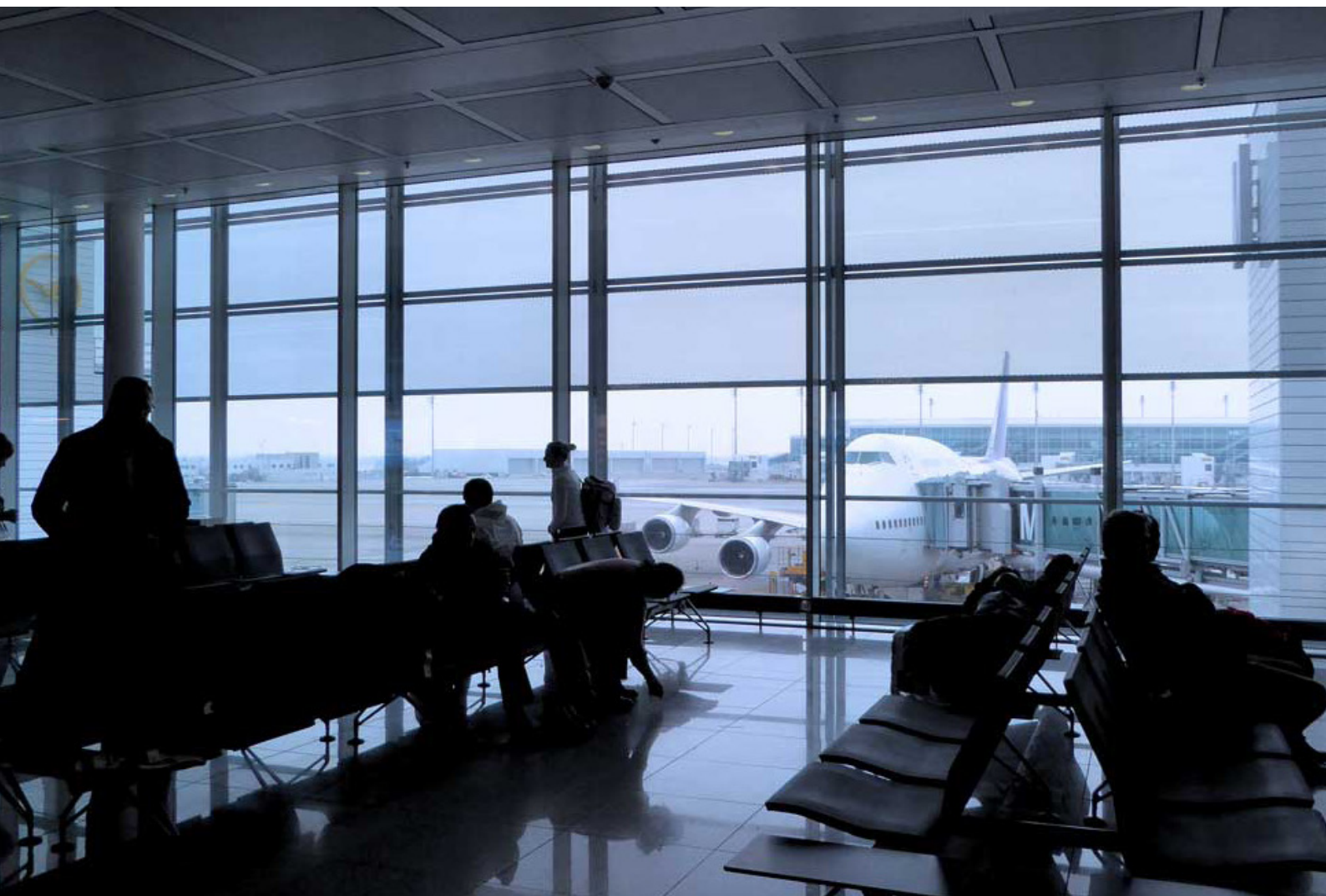
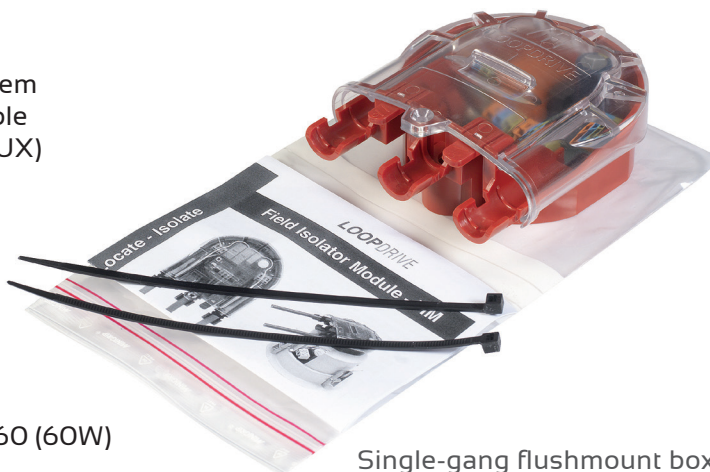
- Emergency paging and BGM over a 2-wire system
- No need for any additional 24VDC override cable
- Local volumecontrole and local music entry (AUX)
- Quick and simple to install

Technical data:

- Trigger threshold: 7.5Vrms (20kHz)
- Inrush period for override: 0.3sec.
- Fade-out period after override: 1.0sec.

FIM-VC contains:

- 1 x single gang flushmount Volume controller V60 (60W)
- 1x surfacemount FIM-VC controller



SNIFFER is a comprehensive **Graphical User Interface (GUI)** that let you automate the commissioning and installation of a Loopdrive system with up to 256 LDB-units over a single RS485 connection.

Sniffer is not only visualizing the various commissioning procedures but also provide streamlined methods for fault-finding and device allocating without the direct need for a digital communication protocol over the 2-wire audio line's. It fulfills the user's needs and expectations by far.

Settings and commands that are available from the various menu's are:

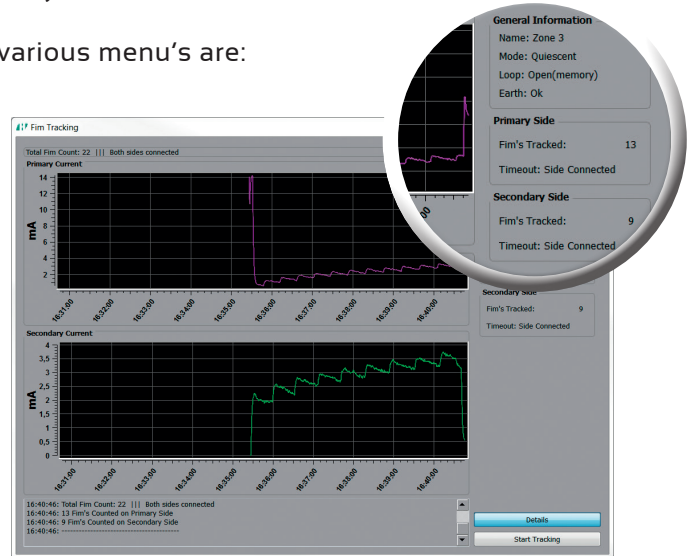
- FIM reset
- LDB reset

Basic settings like:

- General Fault Contact status
- Audio mute
- Earth-loop detection

And special service functions such as:

- Service mode
- Audio output switching
- FIM Tracking mode

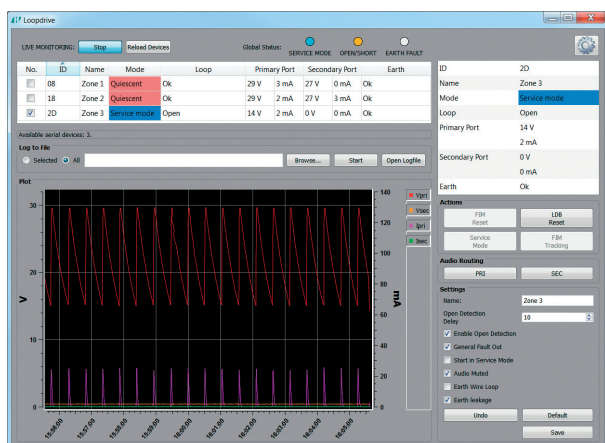


FIM-Tracking-Mode is one of the best features on Loopdrive. With a click on the button the system is instructed to activate the FIM's in sequential order, tracking the number of FIM's on both the PRIMARY (send) and SECUNDARY (return) line during first commissioning by measuring, registering and counting the inrush current.

Tracking-mode will generate a notifying signal when the loop is successfully closed and ready for operation. The total amount of FIM's that were Tracked are shown in the information fields and stored with the corresponding LDB for later verification.

In case a faulty section in the line is detected during Tracking-mode operation, the operator is notified and the exact location of the faulty section is listed by the number of the last successful initialized FIM on either Primary or Secondary side of the loop.

Sniffer app detects single and multiple twisting in cabling, providing the correct signal phase along entire loop.



Main operating window

The screenshot shows the 'Logfile Viewer' window for Zone 3, ID = 2D. It contains a table with the following data:

Timestamp	Mode	Loop	Primary Port (V)	Primary Port (mA)	Secondary Port (V)	Secondary Port (mA)	Earth
2014-11-10: 08:23:50	Quiescent	Ok	29 V	4 mA	29 V	0 mA	Ok
2014-11-10: 08:23:51	Quiescent	Ok	29 V	4 mA	29 V	0 mA	Ok
2014-11-10: 08:23:52	Quiescent	Ok	29 V	4 mA	29 V	0 mA	Ok
2014-11-10: 08:23:53	Quiescent	Ok	29 V	4 mA	29 V	0 mA	Ok
2014-11-10: 08:23:54	Service mode	Ok	29 V	4 mA	12 V	0 mA	Ok
2014-11-10: 08:23:55	Service mode	Ok	28 V	1 mA	26 V	0 mA	Ok
2014-11-10: 08:23:56	Service mode	Ok	27 V	0 mA	26 V	0 mA	Ok

At the bottom, there are dropdown menus for 'Change view to: Zone 3' and 'or ID = 2D', along with an 'Export to CSV' button.

Log-file window

COMPACT 500

C500/3+1



Single cabinet, fully operational Voice Alarm System that includes;

600 WATT 6ch, with additional SPARE amplifier:

- 3x 2ch-audio amplifier (2x100W)
- 1x 2ch-backup amplifier (2x100W)
- AC surveillance continuously or puls-20kHz signal with EOL

Mandatory C500 basics:

- Charger: Battery charger included for 10 - 55AH.
- Controls: Firemen-microphone with front-end controls.
- Local Audio Network: 3x L-Net for remote control devices.
- Global Audio Network: 2x G-Net for ring connectivity to up to 255 C500 units.
- Expandable with SW6 - zone expander module.
- Expandable with LDB - Loopdrive system.
- Dimensions: 80x53x27 cm
- Weight without batteries: 28kg
- Max. additional battery load: 33kg
- IP-rating: IP30
- EN54-16 & EN54-4

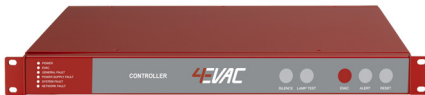
IMPACT

CONTROLLER

Networked Audio Matrix and Voice Alarm Controller;

CONTROLLER basic functions:

- Controls: EVAC and ALERT. RESET, SILENCE, LAMPTEST
- Local Audio Network: 3x L-Net for remote control devices.
- Global Audio Network: 2x G-Net for ring connectivity to up to 255 units.
- 16-EVAC input
- 8-GPO
- Mandatory relay's: FAULT/RESET/SILENCE
- 2x aux entry
- Amp-link
- TCP-IP / AMP-link connectivity
- Compatible with all L-NET devices / modules.
- Dimensions: 44x483x340mm (HxWxD)
- Weight: 2kg
- IP-rating: IP30
- RAL3011
- EN54-16



i-CONTROLLER

Networked Audio Matrix and Voice Alarm Controller;

CONTROLLER basic functions plus:

- **MAZE** Multi-Media engine with 2 port switch
- Frequency range for streams: 20 - 22kHz
- 250 audio channels
- 32 audio channels over AMP-LINK (16x i-DCA2500)
- EN54-16

EXPANDER



Networked Audio Matrix and Voice Alarm Controller;

EXPANDER basic functions:

- Local Audio Network: 3x L-Net for remote control devices.
- Global Audio Network: 2x G-Net for ring connectivity to up to 255 units.
- Compatible with all L-NET devices / modules. (Except for SW6).
- AMP-Link connectivity
- Dimensions: 44x483x340mm (HxWxD)
- Weight: 2kg
- IP-rating: IP30
- RAL3011
- EN54-16

DCA2.500



2x500 WATT D-Class Charger Amplifier - direct drive;

- 2ch amplifier
- Aux input for local source
- AMP-LINK for audio and data charging with CONTROLLER (RJ45)
- Max. load: 2x500W @ 100V / 70V(-3dB) / 50V(-6dB) / LOW-Z max. 5A
- Frequency respond: 20 - 35kHz @ 500W/ch
- Battery charger: 4Amp
- Battery range: 30 - 100Ah
- Remote contacts for: GF/LAMPTEST/ 2xNC
- Temperature sensor included
- AMP-LINK patchcable included
- Dimensions: 88x483x340mm (HxWxD)
- Weight: 8kg
- IP-rating: IP30
- RAL3011
- EN54-16 & EN54-4

i-DCA2.500

2x500 WATT D-Class Charger Amplifier - direct drive;

DCA2.500 basic functions plus:

- MAZE Multi-Media engine with 2-port switch
- Frequency range for streams: 20 - 22kHz
- 250 audio channels
- 32 audio channels over AMP-LINK (16x i-DCA2500)
- EN54-16

ACCESSORIES

4E-FSC



Fibre-optic interface module, CAT5 to 2xSC (Multi-mode);

- Connects to ONE RJ45 Global-net port of the C500.
- The 4E-FSC is directly powered from the Global-net port.
- Requires RX and TX fiber multi-mode connection.
- Fits on the DIN-RAIL
- Redundant L-Net link, 2xRJ45
- EN54-16

4E-SW6



Remote Controlled Zone Extender Module for additional 6-sub-zones, dual source path A&B;

- DIN-RAIL
- Directly connected to a single/dual output line of the DA-200/ DCA2.500 amplifier. The SW6 Zone Extender & Switching module sub-divides the signal path A & B into 6x additional surveilled speaker-line outputs.
- All SW6-outputs can be individually addressed and are carrying signal path A or B.
- Each output can switch to internal 20kHz line surveillance generator (path C).
- Each switched output zone requires an EOL-device for line-integrity detection.
- Max. of 3x SW6 sharing 1x L-Net connection for communication and power purpose. (Without additional 24VDC) The SW6 can be remotely powered incase more than 3x SW6 units need to be linked to a single L-Net line.
- Max. load: 500W per channel
- Redundant L-Net link, 2xRJ45
- Addressable: 0-255
- EN54-16

4E SW6 LITE

LOOPDRIVE Remote Controlled Zone Extender Module for additional 6-LDB-sub-zones;

4E-SW6 basic functions, but with the following exceptions:

- NO loudspeaker-line surveillance
- NO need for EOL
- Specially tuned for LOOPDRIVE-LDB loads
- Specially tuned for loudspeaker zoning without loudspeaker surveillance
- EN54-16

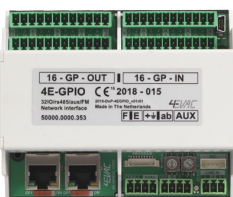
4E-AM448



Amplifier & Loudspeakerline Monitoring module, 4x amplifier channels into 4x AB speakerline output;

- DIN-RAIL
- 4 amplifier channel into 4 (A/B) speakerline surveillance module
- Directly connected to a single channel output line of an amplifier.
- High and low impedant loudspeaker detection. (With EOL)
- Max. of 3x 4E-AM488 sharing 1x L-Net connection for communication and power purpose. (Without additional 24VDC) The 4E-AM488 can be remotely powered incase more than 3x 4E-AM488 units need to be linked to a single L-Net line.
- Each switched output zone requires an EOL-device for line-integrity detection
- RS485 datalink with
- Max. load: 500W per channel
- Redundant L-Net link, 2xRJ45
- Addressable: 0-255

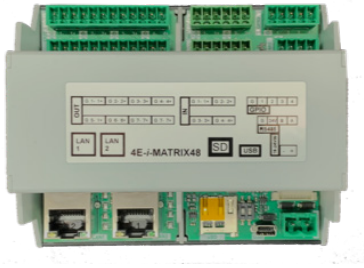
4E-GPIO



Remote contact interface with following hardware configuration;

- DIN-RAIL
- Max. of 2x GPIO sharing 1x L-Net connection for communication and power purpose. (Without additional 24VDC) The GPIO can be remotely powered incase more than 2x units need to be linked to a single L-Net line.
- 16 programmable monitored inputs
- 16 programmable outputs
- 2W DC aux output
- Firemens microphone input, 4E-FMP
- RS485 datalink with
- Balanced analogue audio input
- General Fault and EVAC status output
- Redundant L-Net link, 2xRJ45
- Addressable: 0-255
- EN54-16

4E-MATRIX48



4-IN x 8-OUT audio Matrix with following hardware configuration;

- DIN-RAIL
- STAND-ALONE audio interface.
- Audio bandwidth; 20 - 22kHz
- 4x8 in/out balanced audio matrix.
- 16s delay per output
- 5 point parametric EQ each in/out
- 4x GPIO
- RS485 control
- SD-card message player
- RS485 datalink with
- Web interface
- IP-switch, 2xRJ45
- Addressable: 0-255
- EN54-16

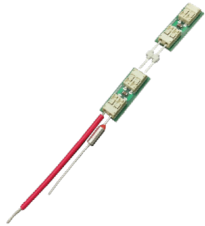
4E-i-MATRIX48

Remote Controlled Zone Extender Module for additional 6-sub-zones, dual source path A&B;

4E-MATRIX48 basic functions plus:

- MAZE Multi-Media engine with 2 port switch
- 250 audio channels
- Can be used in combination with i-CONTROLLER/i-DCA2500 or as STAND-ALONE audio interface.
- EN54-16

4E-EOL/10



PASSIVE - End Of Line module, package of 10PCS;

- Cascadable load setting for: 250 ohm or (cascaded) 125 ohm @
- 20kHz
- 10x Thermal fuse
- 10x Connection lead (100mm)
- 5x LINK-connector
- 10x Protection rating sleeve
- 10x EOL
- EN54-16

4E-B1U/10



BLINDPANEL, 1U - package of 10PCS

- 19-INCH rackmount blindpanel incl. fixing screws. 1HU, 1.2mm, RAL3011
- PACKAGE OF 10 PCS.

4E-B2U/10



BLINDPANEL, 2U - package of 10PCS

- 19-INCH rackmount blindpanel incl. fixing screws. 1HU, 1.2mm, RAL3011
- PACKAGE OF 10 PCS.

4E-B3U/10



BLINDPANEL, 3U - package of 10PCS

- 19-INCH rackmount blindpanel incl. fixing screws. 1HU, 1.2mm, RAL3011
- PACKAGE OF 10 PCS

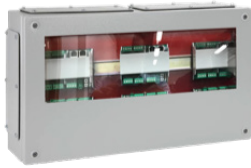
4E-V1U/10



VENTILATIONPANEL, 1U - package of 10PCS

- 19-INCH rackmount ventilationpanel incl. fixing screws. 1HU, 1.2mm, RAL3011
- PACKAGE OF 10 PCS

4E-TBOX-W



TERMINALBOX FOR DIN-RAIL ACCESSORIES

- Surface mount wall box with 2x DIN-RAIL for mounting 6x SW6/ GPIO & FSC, RAL7035
- Supplied with 2x ABS pre-punched PG plates & 6x sheet-steel cover plates
- Window
- 500x300x120mm (WxHxD)

4E-TBOX-W

TERMINALBOX FOR DIN-RAIL ACCESSORIES

- Same as 4E-TBOX-W but WITHOUT WINDOW

4E-FMP



C500 CONSOLES

Fireman Microphone Panel version, service replacement part;

- Handheld firemen's microphone with ALL-CALL button.
- Curl cord working length: 1.10m.
- Electrical monitored.
- Access level 2 protected
- EN54-16

4E-FM



Fireman-Microphone, wall and desktop version;

- Table-top or wall mounted. Wall-bracket(s) included.
- Handheld firemen's microphone with ALL-CALL button.
- Equipped with EN54-16 mandatory indicators.
- Curl cord working length: 1.10m.
- Electrical monitored.
- Access level protection by transparent cover.
- Addressable: 0-255.
- Redundant L-Net link, 2xRJ45
- 2x RJ45 for ring, spur or daisy-chain interfacing with C500
- EN54-16

4E-FMT



Fireman-Microphone with Touchscreen, wall and desktop version;

- Same provision as for 4E-FM plus,
- Configurable 7" touchscreen for paging control and status information
- EN54-16

4E-FMTC



Fireman-Microphone with Touchscreen and gooseneck for Commercial paging;

- Same provision as for 4E-FMT plus,
- 30cm gooseneck with dynamic hyper-cardioid microphone
- EN54-16

4E-CMT



Touchscreen console with gooseneck for Commercial paging;

- Table-top version
- Addressable: 0-255
- 2x RJ45 for ring, spur or daisy-chain interfacing with C500
- Configurable 7" touchscreen for paging control and status information.
- 30cm gooseneck with dynamic hyper-cardioid microphone
- Addressable: 0-255.
- Redundant L-Net link, 2xRJ45
- 2x RJ45 for ring, spur or daisy-chain interfacing with C500

4E-CMP



Pushbutton console with gooseneck for Commercial paging;

- 6 zones plus PTT (Push-to-talk) button
- Zone selection and busy indicators
- Table-top version
- 30cm gooseneck with dynamic hyper-cardioid microphone
- Addressable: 0-255
- Redundant L-Net link, 2xRJ45
- 2x RJ45 for ring, spur or daisy-chain interfacing with C500

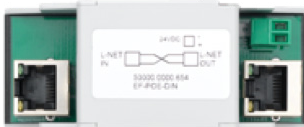
4E-FMWB



Fireman Microphone in secured wallbox;

- Handheld firemen's microphone with ALL-CALL button.
- Curl cord working length: 1.10m.
- Electrical monitored.
- Access level 2 protected wallbox with STANDARD keylock
- Zone selection and busy indicators
- Power, Evac, Fault, Power supply, System fault & Network status indicators
- Lamptest, Silence, Function, Reset, Evac & Alert buttons
- Addressable: 0-255
- Redundant L-Net link, 2xRJ45
- 2x RJ45 for ring, spur or daisy-chain interfacing with C500
- Dimensions: 385Hx440Wx140D
- ALTERNATIVE SPECIAL LOCKS ON REQUEST (DK, SE, NO)
- EN54-16

4E-RPI



Rack-mount L-NET Power Injector;

- L-Net power extender
- Max. 30VDC / 2Amp
- Power adapter / Supply not included

4E-FPI



Field-mount L-NET Power Injector;

- L-Net power extender
- Max. 30VDC / 2Amp
- Power adapter / Supply not included

LOOPDRIVE

4E-LDB



LDB-05 LOOPDRIVE BOOSTER

LDB-05 module comes with:

- 12 - 50 VDC
- electronic unit in Bopla DIN-rail housing
- cable terminal blocks
- DIN-rail clip + connector
- EN54-16

4E-LDB-LC

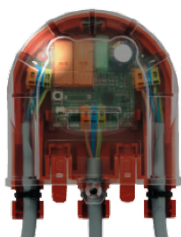


LDB-LC LOOPDRIVE AMP OUTPUT DC-BLOCKING MODULE, 300W

LDB-LC module comes with:

- electronic unit in Bopla DIN-rail housing
- cable terminal blocks
- DIN-rail clip + connector
- EN54-16

4E-FIM-I



FIM-I, Field Isolator Module

FIM-I module comes with:

- 2-wire electronic isolating module with WAGO push-terminals
- fixing screw for cable-tray / fire-dome mounting
- cable release tool
- Protection rate: IP21
- EN54-17

4E-FIM-J



FIM-J, Field Junctionbox

FIM-J Junction box comes with:

- connection board with WAGO pushterminals and 2,2uF capacitor with shorting-bridge (can be cut out)
- fixing screw for cable-tray / fire-dome mounting
- cable release tool
- Protection rate: IP21

4E-FIM-RC

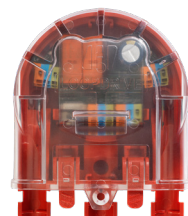


FIM-RC, Remote Contact Module

FIM-RC module comes with:

- 2x change-over relay contact for third party equipment switching
- dual state relays, 8A/230VAC
- Override function based on 20kHz tone detection (@7,5Vrms)
- fixing screw for cable-tray / fire-dome mounting
- cable release tool
- Protection rate: IP21

4E-FIM-VC + V60



FIM-VC, Field Isolator Module with 60W volume-controller

FIM-VC module comes with:

- 2-wire electronic isolating module with WAGO push-terminals
- Output to V60 - 60W volumecontroller with override-function
- Override function based on 20kHz tone detection (@7,5Vrms)
- fixing screw for cable-tray / fire-dome mounting
- cable release tool
- Local source input with override
- Protection rate: IP21
- V60 volume controller included
- EN54-18

4E-V60



V60 volumecontroller, 60W for FIM-VC

Single gang flush-mount volumecontroller with override function:

- Steps from 0 - 9 / MAX / AUX
- AUX input selection for local100Volt audio source
- Rated power handling: 60W
- EN54-18

TOOLS

4E-VACIE-TOOL

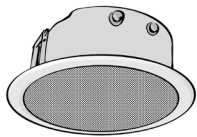


VACIE hand-tool for COMPACT & IMPACT commissioning and service purpose

- Broadband impedance measurement: 10ohm - 20kohm @ 100Hz-50kHz
- Adjustable center frequency
- Frequency 'Z'-sweep Plotter 100Hz - 50kHz
- Frequency generator 10Hz - 20kHz , -40 / 0 dBv
- EOL (manual) tune
- EOL (automatic) tune
- Ground leakage
- Includes: Tool with battery, carrying case, test cables, USB-charging cable

EN54-24 LOUDSPEAKERS

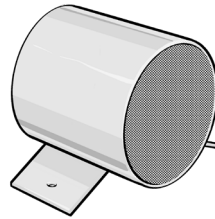
4E-F series - EN



Ceiling Loudspeaker

- Power: 6/3/1,5 Watt
- DC-blocking capacitor: 2,2uF
- Frequency response : 64 - 21.500 Hz.
- SPL 1Watt/1mtr. : 97 dB
- Dimensions : Ø 180 x 99 mm.
- Cut-out : Ø 161-167 mm
- Dispersion 1kHz. : 180°
- Material : plastic
- Weight : 0,78 kg
- Colour : RAL 9016
- IP rating : IP21
- Certified : EN 54-24:2008

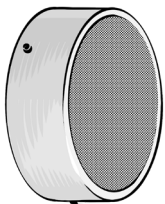
4E-P series - EN



Bi-directional Sound projector

- Power: 10/5/2,5 Watt
- DC-blocking capacitor: 2,2uF
- Frequency response : 90 - 25.000 Hz.
- SPL 1Watt/1mtr. : 90,7 dB
- Dimensions : Ø 202x163x170 mm.
- Dispersion 1kHz. : 2x170°
- Material : plastic
- Weight : 1,82 kg
- Colour : RAL 9016
- IP rating : IP56
- Certified : EN 54-24:2008

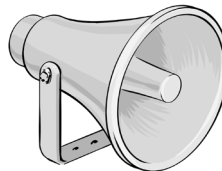
4E-S series - EN



Surface mount loudspeaker

- Power: 10/6/3/1,5 Watt
- DC-blocking capacitor: 2,2uF
- Frequency response : 230 - 22.000 Hz.
- SPL 1Watt/1mtr. : 102 dB
- Dimensions : Ø 170 x 75 mm.
- Dispersion 1kHz. : 180°
- Material : metal
- Rear and side cable entry
- Weight : 1,3 kg
- Colour : RAL 9010
- IP rating : IP21
- Certified : EN 54-24:2008

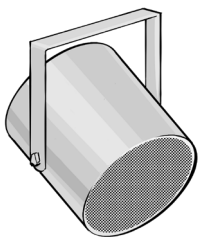
4E-H series - EN



Horn loudspeaker

- Power: 15/7,5/3,75/1,9 Watt
- DC-blocking capacitor: 2,2uF
- Frequency response : 300 - 13.800 Hz.
- SPL 1Watt/1mtr. : 108,5 dB
- Dimensions : Ø 209x321 mm.
- Dispersion 1kHz. : 110°
- Material : plastic
- Weight : 2,08 kg
- Colour : RAL 7035
- IP rating : IP66
- Certified : EN 54-24:2008

4E-P series - EN



Sound projector

- Power: 10/5/2,5/1,25 Watt
- DC-blocking capacitor: 2,2uF
- Frequency response : 120 - 21.000 Hz.
- SPL 1Watt/1mtr. : 99,5 dB
- Dimensions : Ø 137 x 200 mm.
- Dispersion 1kHz. : 252°
- Material : plastic
- Weight : 1,44 kg
- Colour : RAL 9016
- IP rating : IP66
- Certified : EN 54-24:2008

LOOPDRIVE

Patented short-circuit isolator system with full line surveillance, compatible with any PA / VA system on the market. Next generation upgrade from the EOL or impedance monitoring.

COMPACT

All-in-one Voice Alarm system in a tiny package. 600 W into 36 zones from a single wall box, including battery, backup amp, fireman's microphone, GPIO and much more. Amazing network capabilities.

IMPACT SW

19" rack mounted modular Voice Alarm center. Unique power performance, up to 96 zones and more than 15 kW from a 33U block. Networkable up to 254 racks, fully compatible with Compact.

IMPACT MM

Multi-Media upgrade of IMPACT SW, featuring lossless, low latency 250-channel audio over IP protocol, impressive DSP and built-in Ethernet switches. Perfect synergy of Voice Alarm and Public Address with modern multi-channel broadcast capability.

