



Compact plug-and-play PA/VA system

EN 54-16

EN 54-4

1438-CPR-0527

- ✓ Standalone or TCP/IP network architecture
- ✓ Scalable and quick to install All-in-One type system
- ✓ Wall or rack mounted versions available
- ✓ Impedance, end of line module or short-circuit isolators for speaker line monitoring
- ✓ Ability to connect standalone miniVES and midiVES devices for large distributed systems
- ✓ Ease of networking: using copper, single and multimode fibre in any combination
- ✓ Built-in fire microphone and touch screen with easy-to-use interface to control background music sources, volumes, timers and all voice evacuation related functions



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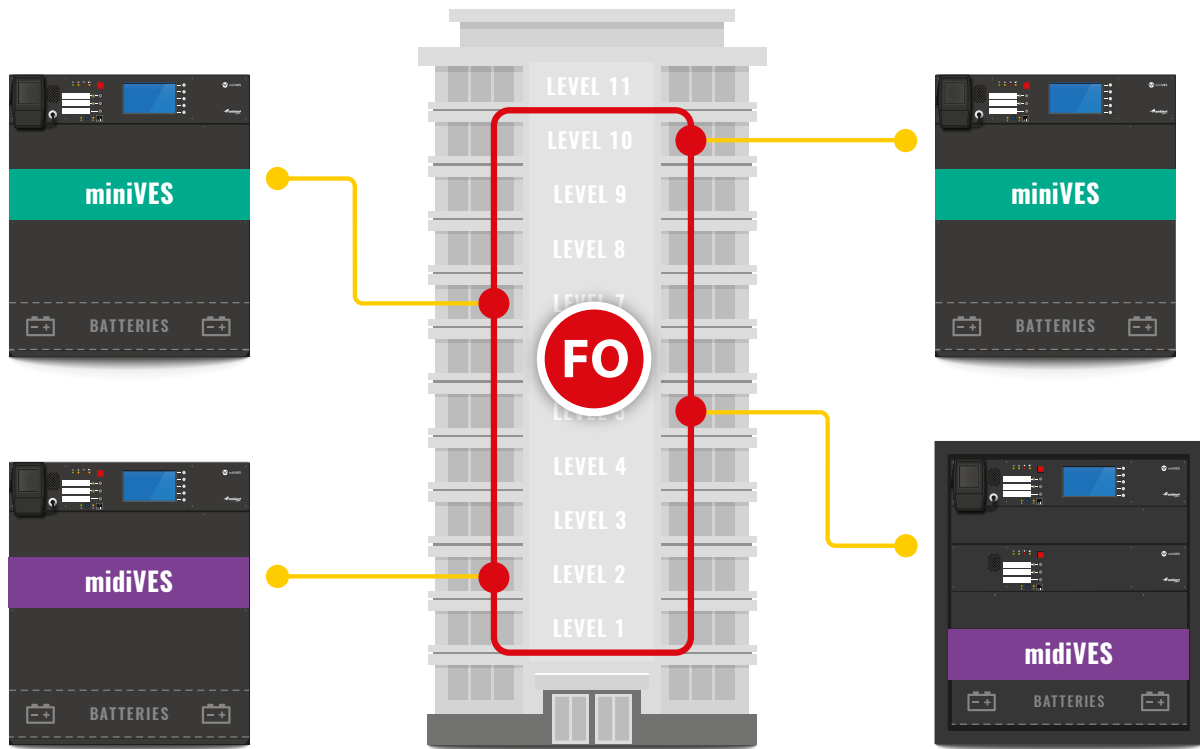
EN 54-4



miniVES / midiVES main features

- » *All in one – independent wall mount EN 54-4/16 PA/VA unit*
- » *Stand alone or TCP/IP network architecture*
- » *DSP audio processing on board*
- » *Compatibility with RACK mounted modular MULTIVES*
- » *Professional Sound Quality (48 kHz, 16 bit, uncompressed audio)*
- » *Evacuation, paging message and background music features*
- » *Impedance, end of line module or short-circuit isolators for speaker line monitoring*
- » *Simple installation and simple to design*
- » *User friendly and intuitive programming software*
- » *EN 54-4 charger for up to 65 Ah batteries and 24 / 48 VDC outputs for powering external devices*
- » *VoIP / SIP integration*

miniVES / midiVES system example



miniVES and midiVES are scalable Public Address & Voice Alarm units suitable for multi-purpose architectures. Devices from miniVES and midiVES series are voice alarm compact control units containing all components within one compact housing, which meet all the requirements of EN 54-16 and EN 54-4 (certificate of constancy of performance 1438-CPR-0527).

Whole concept of the system is based on the high quality audio network distribution nodes equipped either with two independent 160 W, 320 W or three independent transformerless 500 W class D amplifiers, which distribute 100 V signals to 4, 8 or 16 speaker lines depending on the type. The system also ensures operation of a backup amplifier for the Emergency priority type of signals.

All type of centrals are equipped with integrated backup power supply and EN 54-4 compliant charging unit.

miniVES and midiVES are designed to be a Plug & Play device with all elements expected from Voice Evacuation Systems; including a built-in fire microphone, touch-screen for global control, DSP, programmable contact inputs and buttons, time scheduler, charger with battery mounting space and expandable memory size for messages – all fitted into IP30 chassis or dedicated 15u rack for midiVES 8003LNR with 8003R.

miniVES and midiVES belongs to the family of independent EVAC systems which can be networked together and extended by desktop zone microphones or fireman microphones via TCP/IP network to provide

live announcements and background music inputs. The system has been designed to be wired using CAT5 cables for paging microphones and fibre-optic redundant interlink connections between the systems.

All systems support up to 45 high quality audio signals distributed over 254 devices in the network.



miniVES	2001/N/L/LN*	4001/N/L/LN*	4002/N/L/LN*	4002LNR
No of AB zones	2	4	4	4
No of speaker lines	4	8	8	8
No of control inputs	7	7	7	7
No of relay outputs	3	3	3	3
Relay switching current (max.)	3 A peak**			
Relay switching voltage (max.)	50 V AC / DC peak**			
Relay switching power (max.)	90 W**			
Total audio load of the system	320 W rms	640 W rms	640 W rms	640 W rms
No of amplifiers / power	2 / 160 W	2 / 320 W	2 / 320 W	2 / 320 W
Redundant amplifier	Yes	Yes	Yes	Yes
No of messages played at the same time	1	1	2	2
Protection	Over-temperature, short circuit, overload, ground leakage			
Battery working time	30 hours + 30 minutes evacuation			
Ingress protection	IP 30			
Operating condition	-5 to +45°C / 5% to 95% humidity with no condensation			
Gross weight	26 kg	31 kg	31,5 kg	19 kg
Dimensions (W×H×D)	440 mm × 525 mm × 350 mm			439 mm × 176 mm × 354 mm
Finish	Black			
Optional functions				
No of audio inputs	1 – Stereo to mono			
No of audio outputs	1 – mono line output			
Network card	2 × SFP module 1 Gb/s; 1 × POE 1 Gb/s, 100 Mb/s; 1 × LAN 1 Gb/s, 100 Mb/s connection; RS485 port; 1 × LAN/WAN 100 Mb/s connection			
Basic network card	2 × LAN 1 Gb/s, 100 Mb/s, 1 × LAN/WAN 100 Mb/s connection			–
GUI	4,3" color touch screen			
DSP	Input EQ, outputs EQ, feedback eliminator and audio limiter, delay up to 30000 ms – routing, mixing, prioritizing included			

* All devices available with optional touch screen LCD (L) and network card with 2 × SFP modules and POE (N)

** IMPORTANT: any DC combination of V & A not to exceed switching power max. value. Not allowed capacitive nor inductive load, because of large inrush current / voltage spike, that can significantly exceed the maximum allowed switching current or voltage.



8003LN



8003LNR

8003R



8003LNR + 8003R

midIVES	8003LN	8003LNR	8003R	8003LNR + 8003R
No of AB zones		8		16
No of speaker lines		16		32
No of control inputs		7 + 2		14 + 2
No of relay outputs		3 + 2		6 + 2
Relay switching current (max.)		3 A peak*		
Relay switching voltage (max.)		50 V AC / DC peak*		
Relay switching power (max.)		90 W*		
Total audio load of the system		1500 W rms		3000 W rms
No of amplifiers / power		3 / 500 W		6 / 500 W
Redundant amplifier		Yes		Yes
No of messages played at the same time		3		6
Protection		Over-temperature, short circuit, overload, ground leakage		
Battery working time		30 hours + 30 minutes evacuation / 4 × 12 V VRLA batteries		
Ingress protection	IP30	Mounted in IP30 Rack		
Operating condition		-5 to + 45°C / 5% to 95% humidity with no condensation		
Weight	23 kg	16,5 kg	16 kg	N/A
Dimensions (W×H×D)	440 × 525 × 350 mm	440 × 176 × 354 mm		600 × 765 × 600 mm
Finish		Black		
Optional functions				
No of audio inputs		1 – stereo to mono		2 – stereo to mono
Power sources – EN 54-4		1 × 24 V DC (150 mA maximum) and 1 × 48 V DC (350 mA maximum)		2 × 24 VDC (150 mA max.) & 2 × 48 VDC (350 mA max.)
Optional network card		2 × SFP module 1 Gb/s; 1 × POE 1 Gb/s, 100 Mb/s; 1 × LAN 1 Gb/s, 100 Mb/s connection; RS485 port; 1 × WAN 100 Mb/s connection	2 × LAN 1 Gb/s, 100 Mb/s, 1 × WAN 100 Mb/s connection	2 × SFP module 1 Gb/s; 1 × POE 1 Gb/s, 100 Mb/s; 3 × LAN 1 Gb/s, 100 Mb/s connection; RS485 port; 2 × WAN 100 Mb/s connection
GUI 4,3" color touch screen	Yes	Yes	No	Yes
DSP		Input EQ, outputs EQ, feedback eliminator and audio limiter, delay up to 30000 ms – routing, mixing, prioritizing included		
Fire microphone	Yes	Yes	No	Yes
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Microphones

EN 54-16

ABT-M01 Microphone

The ABT-M01 microphone is an affordable fully analog device. It is equipped with a built in gong generated onboard the device, accessible through the switch on the back panel. The gong as well as the microphone itself has an individual volume control knob also placed on the back panel of the device.

To operate the device press the MIC ON button, the status LED will switch to steady green light. In the event of an active built in gong, the status LED will turn green once the gong has ended. When finished transmitting the message release the MIC ON button to deactivate the gooseneck mic.



ABT-M04 Microphone



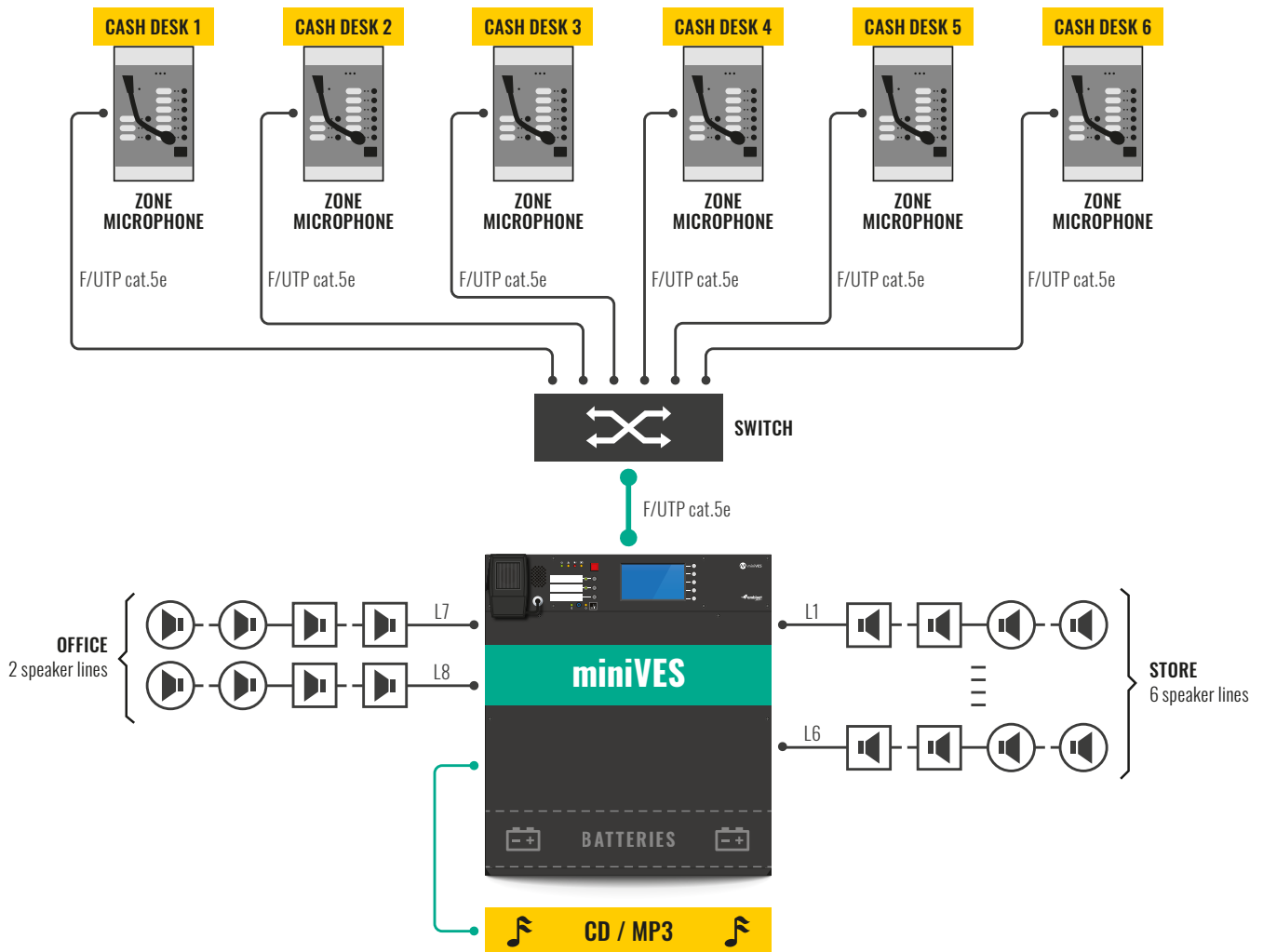
The ABT-M04 is a 4 button analog microphone with built in gong, push to talk and bi-color LED indicating the ready-to-speak status.

To operate the device first select the Zones by pressing designated buttons and then press MIC ON button, the status LED will switch from red (not ready for broadcast) to steady green light. In the event of an active built in gong, the status LED will turn green once the gong has ended. When finished transmitting the message release the MIC ON button to deactivate the gooseneck mic.

	ABT-M01	ABT-M04
Operating voltage		20–57 VDC
Efficiency		10 mV / a
Output level		775 mV
Maximum distance from amplifier		250 m
Recommended cable type		UTP
Connector Type		8P8C (RJ45)
Dimensions without packaging (not more than)		150 × 60 × 165 mm
Net weight (not more than)		1,2 kg

Examples of Implementations

STORE / PA system



PA SYSTEM WITHIN THE STORE

» Zone microphone at the till:

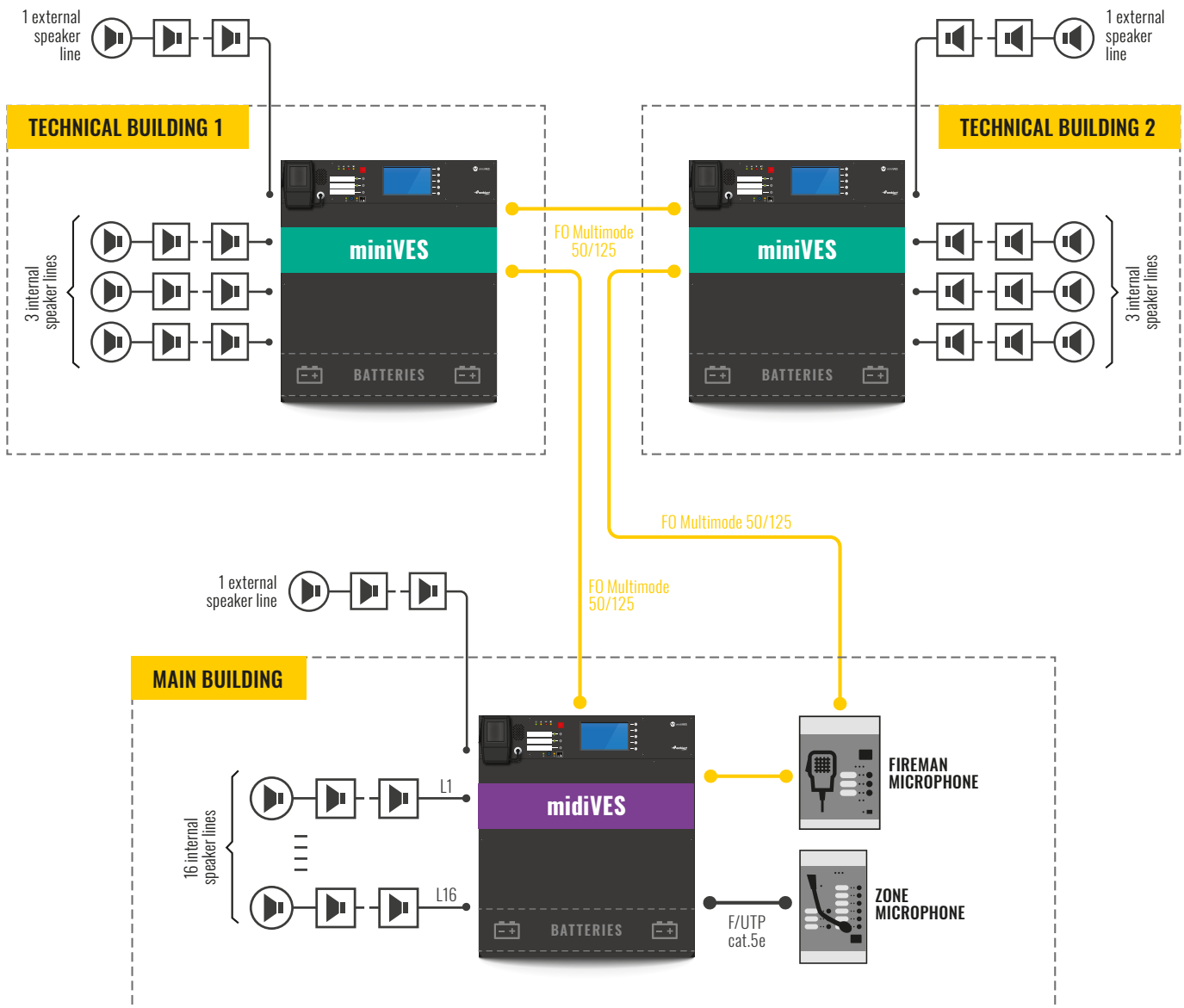
- › Public announcements;
- › Fully programmable buttons can be easily activated to broadcast specific announcements e.g. previously recorded public information regarding opening of tills or staff announcements.

» Zone microphone in the office:

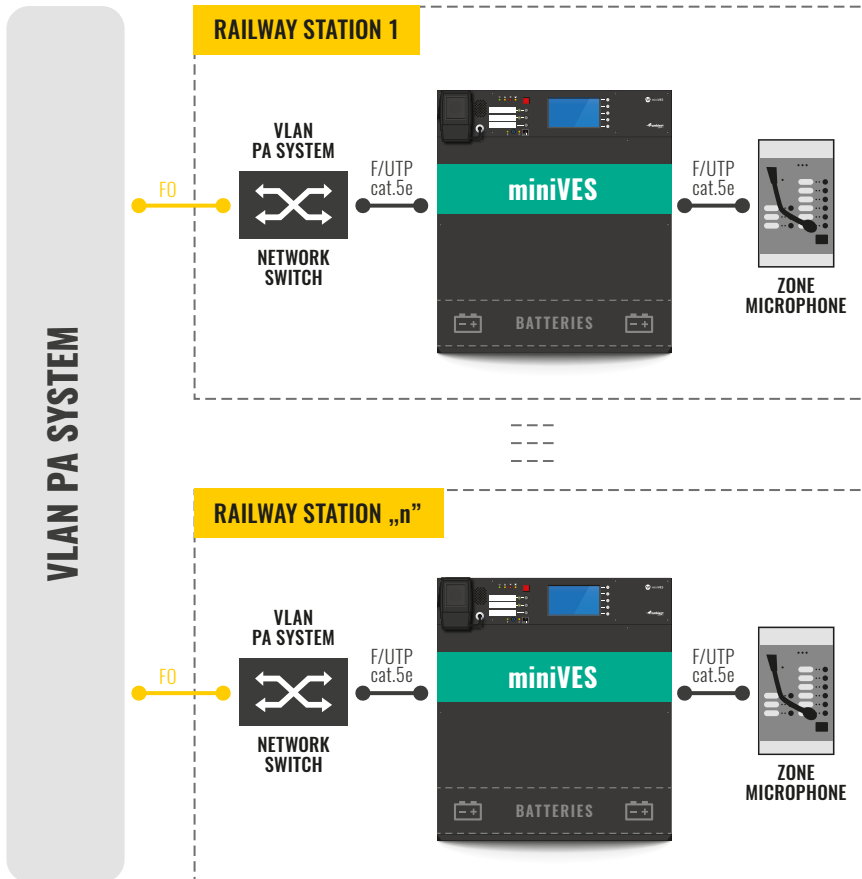
- › It acts as the PA control panel allowing to select zones, switch on/off specific sound sources and regulate the sound volume;
- › Ethernet protocols enable seamless communication between zone/fireman microphones and the control units via standard switches connecting mic cables to miniVES control unit;
- › In-built audio setup can be used to connect external sound sources to broadcast marketing announcements or to provide background music in the venue.

INDUSTRIAL FACILITY – networked Voice Evacuation System

- » miniVES and midiVES control unit's network cards allow to join several industrial buildings into one integrated system.
- » Use of fibre-optic loops between miniVES and midiVES central units guarantees that in the event of a single fault/damage, the system will continue to function properly.
- » Microphones located in the main building enable broadcasting of live announcements and/or pre-recorded automatic messages to selected zones in all buildings.
- » Fireman microphone can perform all key functions of a miniVES and midiVES control unit e.g. activate alarm messages or public announcements in selected or all zones and to broadcast live voice messages.
- » Once the fire warning is triggered (automatically via the fire alarm system or manually using fireman microphones), the system starts broadcasting alarm messages recorded on each control unit. Loss of connectivity in one part of the networked system (including damage to messaging memory of one control unit) does not impact on the system's ability to broadcast warning messages – the devices work independently thus ensuring continuous alarm warning functions.
- » Loudspeakers lines in open spaces are connected to central units via certified power surge protectors thus ensuring safety of devices during electric storms or lightning.



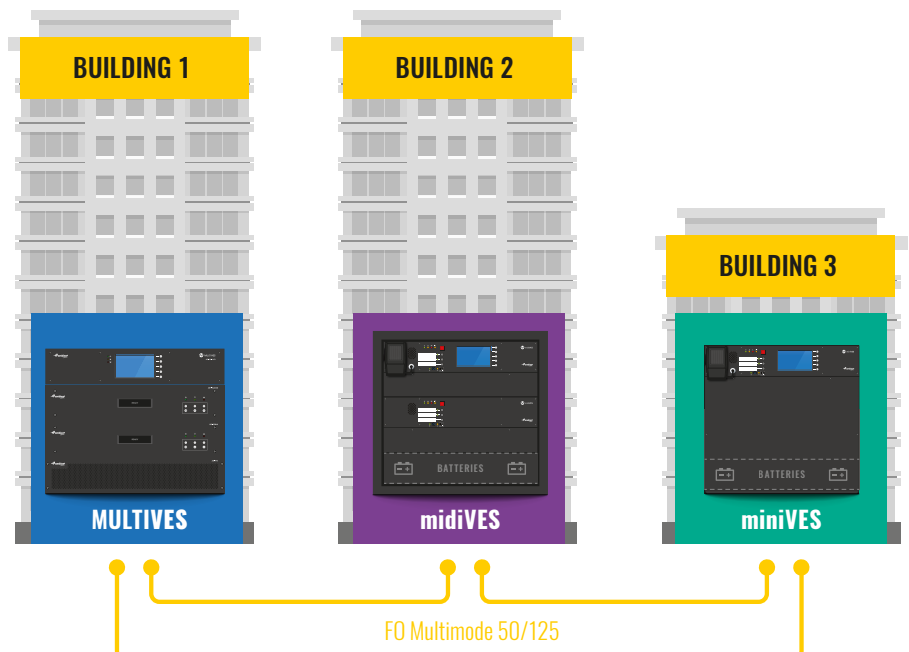
TRAIN / TUBE / BUS STATIONS – using Voice Evacuation System



- » miniVES control unit's network cards allow to join several stations into one integrated system via Ethernet and VLAN protocols.
- » Zone microphones located at each station enable broadcasting of live announcements and/or pre-recorded automatic messages to selected zone(s) at the station as well as to all zones in the whole system. Information can be broadcasted by staff to all or selected platforms to advise passengers of changes in the timetable or to warn them of an emergency.
- » In-built audio inputs in each central unit and microphones allow to connect external sound sources and to transmit information controlled by the external authority.
- » In-built buffering function enables recording of lower priority information to be transmitted once the priority zones are freed up.

Expansion of existing miniVES system – connection with MULTIVES

- » Connecting miniVES and midiVES system to MULTIVES system, designed to work with medium and large structures, can provide full networking capabilities. A networked solution of MULTIVES, midiVES and miniVES can be then installed at large train stations, airports and other complex structures while providing tangible cost efficiencies.





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Ambient System products are continually improved. All specifications are therefore subject to change without prior notice.

EN / 08.2021