





miniVES



midiVES

EN 54-16

EN 54-4

1438-CPR-0527

# Compact plug-and-play PA/VA system

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# Compact Plug-and-Play PA/VA System



**EN 54-16**

**EN 54-4**

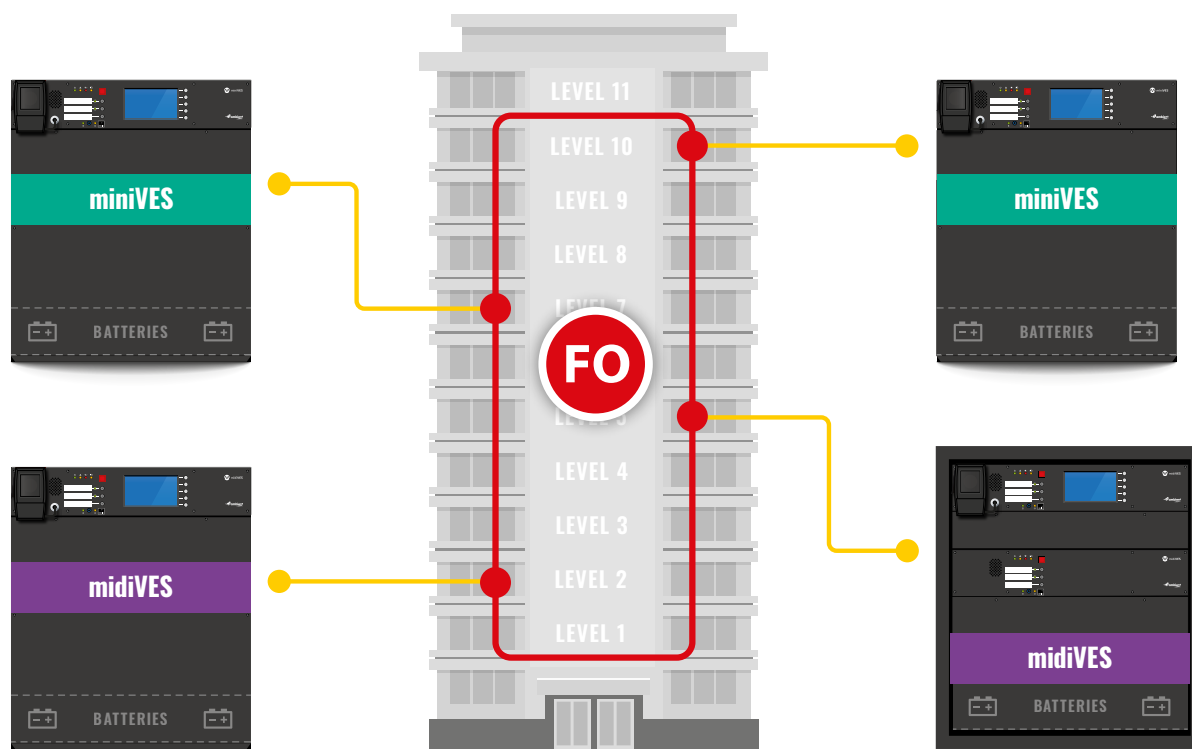


## MINIVES / MIDIVES MAIN FEATURES

- » *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 smartVES*
- » *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*
- » *VoIP / SIP integration*
- » *EN 54-4 charger for up to 65 Ah batteries and 24 / 48 VDC outputs for powering external devices*



## 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	2001L/LN *	4001L/LN *	4002L/LN *	8002L/LN *	4002LNR *	8002R/LNR
No of AB zones	2	4	4	8	4	8
No of speaker lines	4	8	8	16	8	16
No of control inputs	7					
No of relay outputs	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				
No of amplifiers / power	2 / 160 W	2 / 320 W				
Redundant amplifier	Yes					
No of messages played at the same time	1		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	czarny					
Optional functions						
No of audio inputs	1 – Stereo to mono					
No of audio outputs	1 – mono line output					
Network card (all versions LN and LNR)	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; 1x LAN/WAN 100 Mb/s connection					
Basic network card (versions L and R only)	2× LAN 1 Gb/s, 100 Mb/s, 1× LAN / WAN 100 Mb/s					
GUI	4,3” color touch screen					
DSP	Input EQ, outputs EQ, feedback eliminator and audio limiter, delay up to 30000 ms w – 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



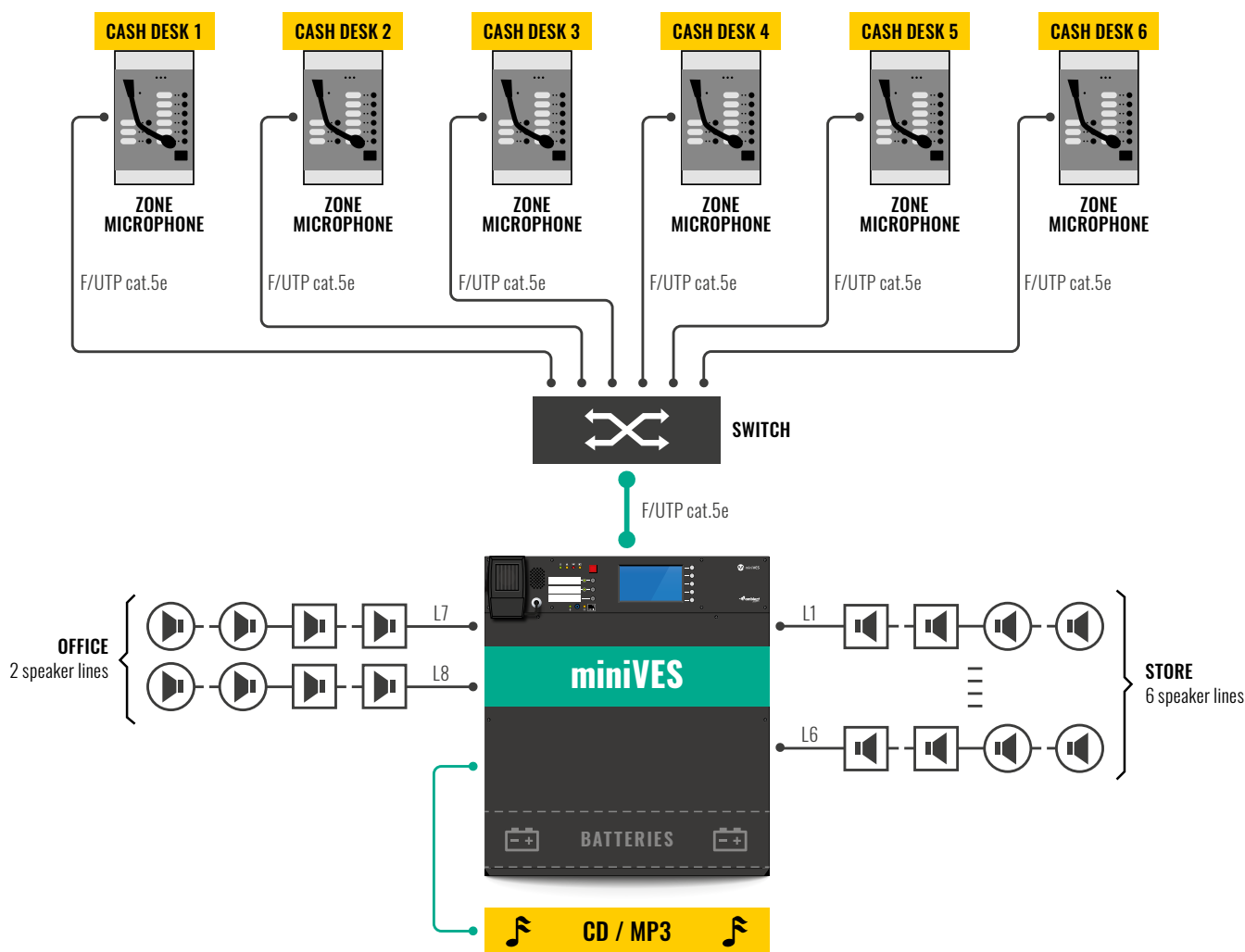
8003LNR + 8003R

midīVES	8003LN	8003LNR	8003R	8003LNR + 8003R
No of AB zones	8			16
No of speaker lines	16			32
No of control inputs	7 + 2		7	14 + 2
No of relay outputs	3 + 2		3	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

\* 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.

# Examples of Implementations

## STORE / PA SYSTEM



## PA SYSTEM WITHIN THE STORE

### Zone microphone at the till:

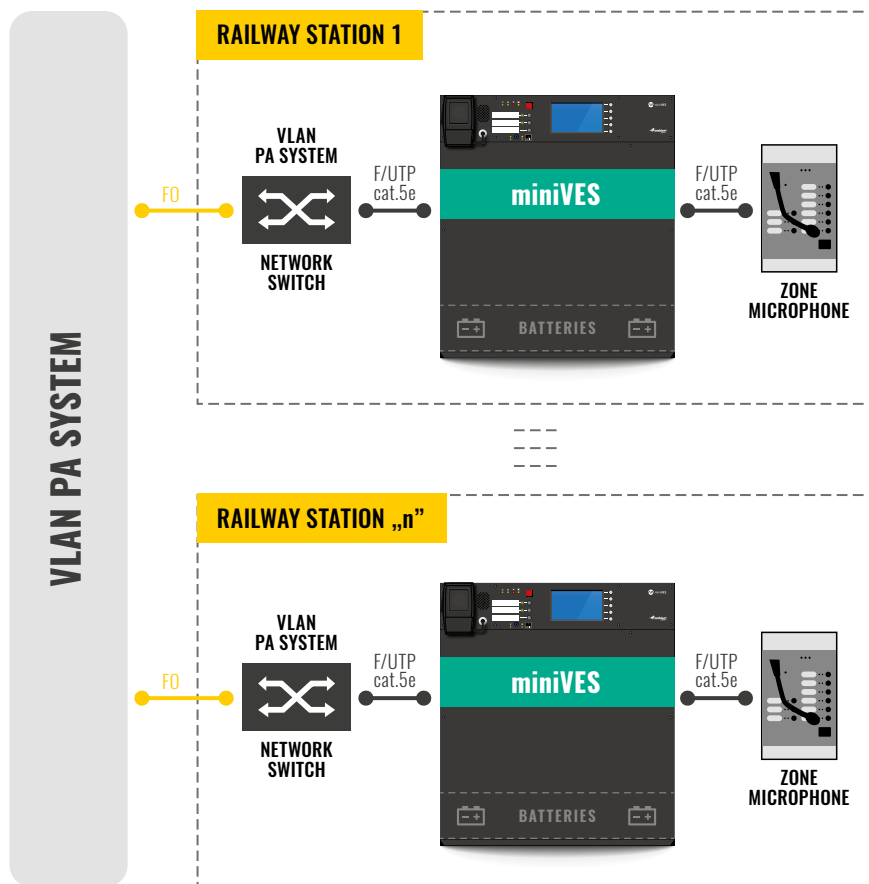
Public announcements;

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.

## TRAIN / TUBE / BUS STATIONS – 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 SMARTVES

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

