

miniVES

MINI PAVA UNIT FOR MULTI PURPOSE ARCHITECTURES

EN 54-16

EN 54-4

In relation to the successful completion of certification process, Ambient System introduces a new Voice Evacuation System **miniVES** to the market. It is dedicated for smaller facilities, where VES or PA systems are required.

This article shows the basic system characteristics and examples of its use, along with the advantages and operational description resulting from the use of miniVES devices.

MINIVES DESCRIPTION

Devices from miniVES series are VES compact control units containing all components within one small housing, which meet all the requirements of **EN 54-16** and **EN 54-4**.

The system is designed for small and medium-sized facilities, for which the installation of certified VES or PA system is required. Control unit of miniVES is equipped

with two independent amplifiers of grade D with a power of 160 W or 320 W, which distribute 100 V signals to 4 or 8 speaker lines depending on the type. The system also ensures operation of a backup amplifier for the evacuation signal.

miniVES is a complete VES in which advanced energy saving mechanisms are implemented. miniVES control unit is equipped with an integrated battery charger, supply system which meets the requirements of EN 54-4 and a place for accumulator batteries.

miniVES is designed in **Plug & Play** technology – it is ready to work after installation on the wall, connection of conduits and installation of accumulators in the housing. The factory configuration can be

also edited and custom-modified for the building and evacuation scenarios.

miniVES, having its independent units and fireman's microphones connected with a fibre loop, can create an extensive network system, which, in case of larger buildings, may be a cost-alternative solution as compared to competitive VES.

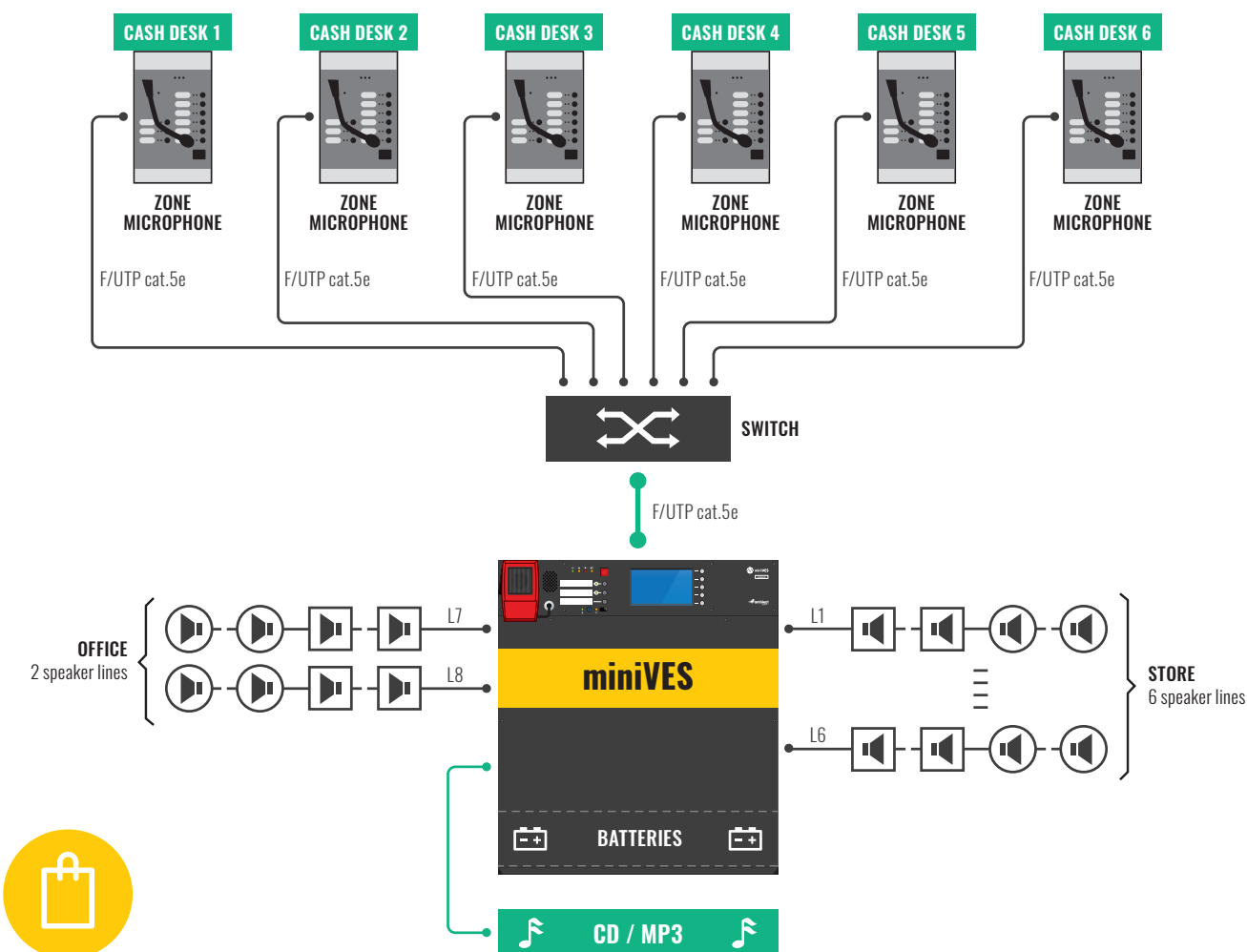
miniVES network system based on TCP/IP enables distribution of background music between the units as well as retaining the functionality of the intercom between the main units and system microphones. Easy configuration is achieved by the use of unique communication protocol developed by Ambient System R&D, which is also fully compatible with all MULTIVES elements, designed for large systems.



miniVES MAIN CHARACTERISTICS

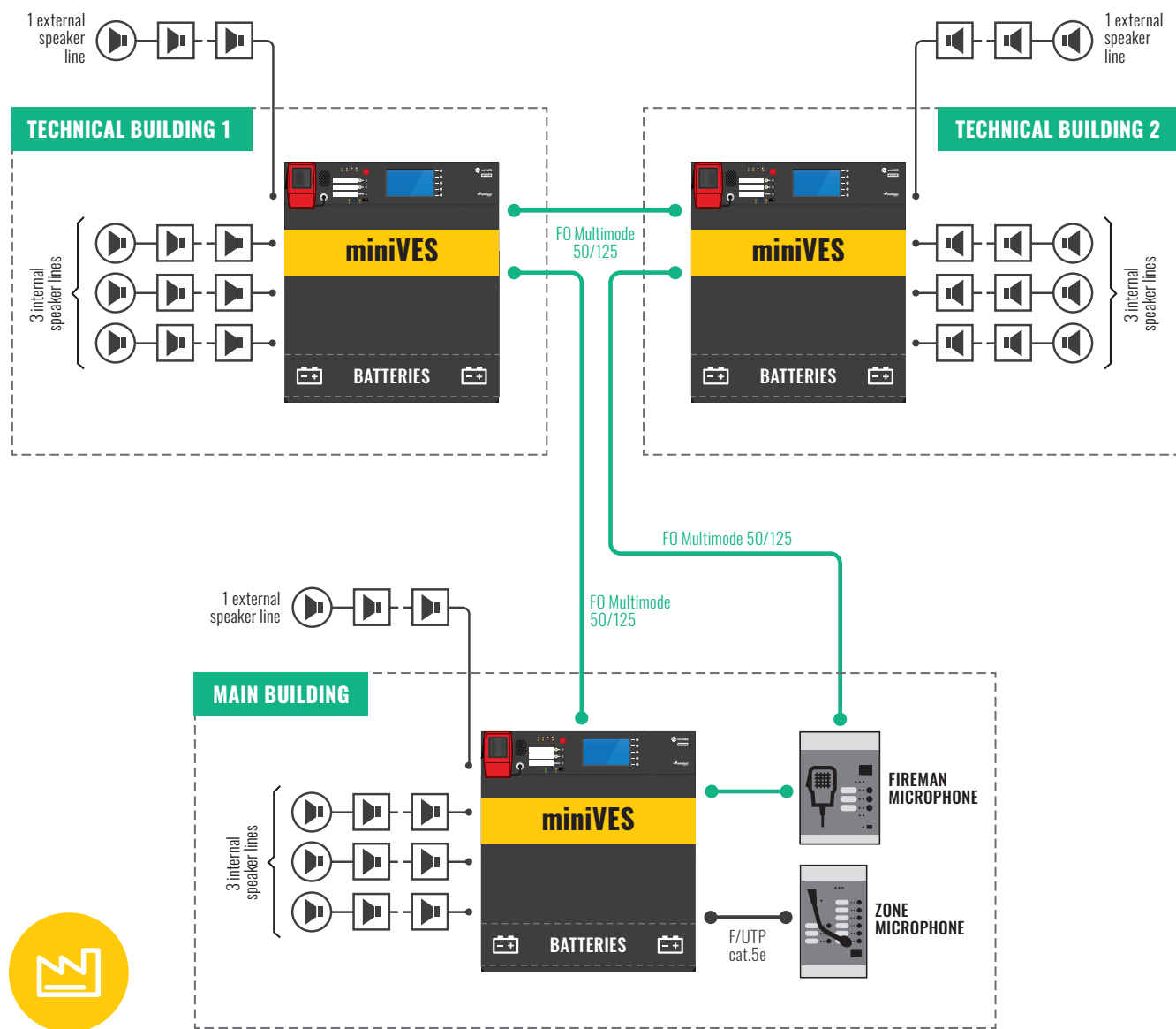
- » meets the requirements of EN 54-16, EN 54-4;
- » impedance and loop speaker monitoring;
- » optional short-circuit insulators;
- » no limit in the number of connected fire and zone microphones;
- » optional network card supporting redundant fibre connection between control units;
- » built-in back-up amplifier;
- » electronics designed for high energy-saving.

EXAMPLES OF APPLICATION



Public Address system in STORES

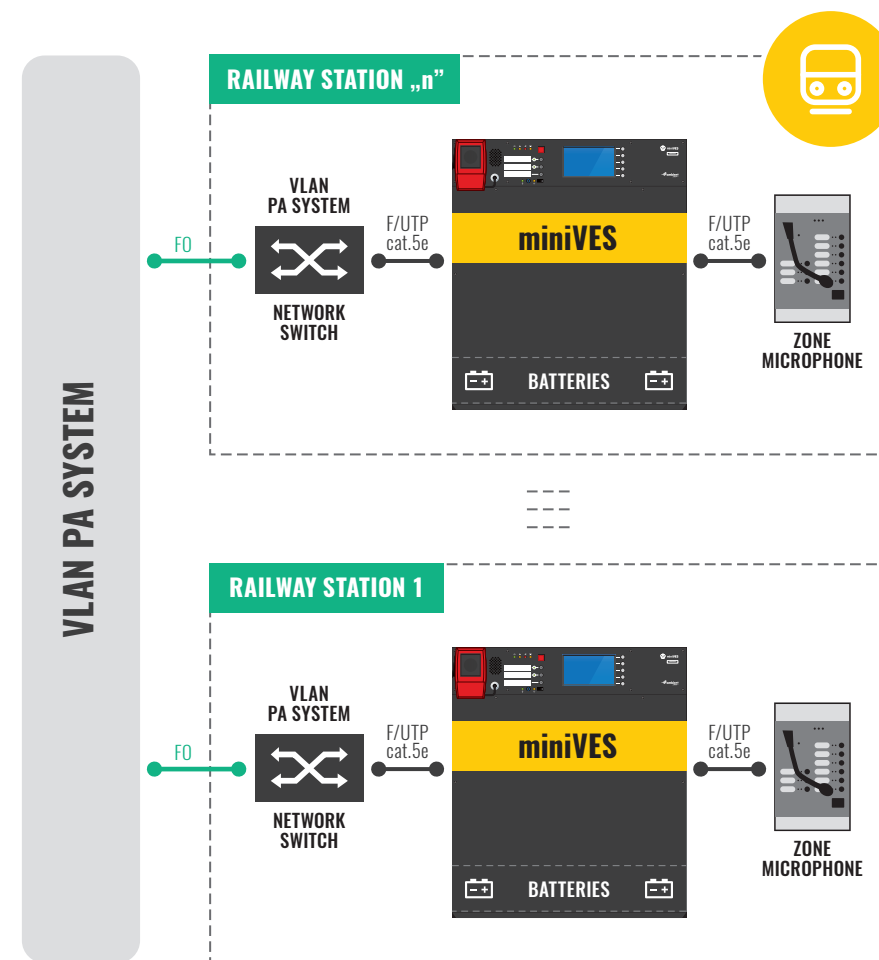
- » Communication between microphones and Voice Evacuation System control unit is conducted via ETHERNET protocol – possibility of using typical SWITCHES to which microphone cables and then, a single cable are connected to miniVES control unit.
- » **Zone microphone in the office section:**
 - » it is a control unit of the PA system – it enables selection of a zone, activation and deactivation of sound sources or adjustment of sound level.
- » **Zone microphone at the cash desk:**
 - » transmission of verbal alerts;
 - » freely programmable buttons – activation of a button may result in a transmission of the alert that was already recorded in the system control unit, e.g. calling the store manager, noticing the customers of free cash desk, etc.
- » Built-in audio input in the control system enables a connection of external devices – transmission of background music of advertisements within the store.



INDUSTRIAL FACILITY – network transmission system

- » Equipping miniVES control units with communication cards enables connection of multiple industrial facilities into one system. Network cabling between control units made in the form of a fibre loop ensures that any damage of the cabling appearing in any place has no effect on the correct operation of the system.
- » Microphones located in the main building enable a transmission of verbal and/or automatic alerts to the selected speaker zones in all buildings.
- » Fireman's microphone is a top-priority device, providing transmission of the alerts on threats to the people within all or selected buildings.

- » In case of fire emergency, receipt of control signals from Fire Alarm System or manual activation from the fireman's microphone, the system sends alerts from the memory located in every miniVES control unit. Single devices operate as autonomous systems, ensuring continuous airing of the alerts on any threats, while total loss of the connection in a part of the systems takes place.
- » Speaker lines, within open areas, are connected to the central devices with certified surge arresters which ensure safety of devices in case of surges in speaker lines due to lightning discharge.



VES at RAILWAY / SUBWAY stations

- » Equipping miniVES control unit with a communication card enables connection of multiple stations, separated from each other by several kilometers, into one system. It is possible to use the existing, logically-separated network infrastructure (VLAN) thanks to the communication between devices via ETHERNET.
- » Zone microphone at each station enables a transmission of verbal alerts or activation of the automatic alerts from system's memory not only within the station but also to any speaker zone/s of the whole system, in order to inform the passengers awaiting a train about, for example, changes in traffic scheme or about any danger in the building.
- » Built-in audio inputs in every control unit and microphone enable a connection of external system signals and alerts coming from a primary, external information systems.
- » Built-in alert buffering function enables recording of low-priority information that are sent to the speaker lines occupied by primary sources and they are played automatically when the zones are free.

Extension of existing VES – connection with MULTIVES

- » miniVES control units can operate when connected with MULTIVES control units which is used for both medium-sized and large buildings. Extension of existing MULTIVES can be realized through upgrading the devices and connecting the VES devices to the MULTIVES network, which can result in cutting the costs of such extension.

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