

VA-500

Reliable in every situation





VA-500

COMPACT VOICE ALARM SYSTEM



The VA-500 is a compact, all-inclusive, wall-mounted voice evacuation system that incorporates all important functions and components. It is optimally suited to all premises and installations in which a PA system is used for emergency announcements and is thus a central part of the safety and security concept, fully complying with the EN 54-16 standard.

The permanent self-surveillance provides warning of failure to any component critical to system operation and even switches over automatically to the integrated emergency power supply or stand-by-amplifier. PA announcements in each individual zone in combination with background music completes the high functionality of this compact evacuation system. Delivering a total output of 500 W, the system is able to monitor and protect up to 6 zones, with the possibility of connecting up to 16 paging units and up to 6 other VA-500 units.

- Fully self-monitored
- Built-in WAV player
- Integrated and monitored battery backup
- Up to six zones with independent amplifiers with a total of 500 W (one backup amplifier), double output A+B per zone
- Seven monitored inputs for triggering voice alarm and alert messages
- One AUX input for external sound sources
- One voice-controlled input
- Three configurable relay outputs
- Up to 16 additional paging units
- Networking of max. six VA-500 units

THE ALLROUNDER



Monitored fireman's microphone

Permanently monitored are the fireman's microphone or a remote emergency microphone unit (up to six units), which are used to broadcast life-saving instructions. A fault on the microphone capsule or on the microphone line will immediately trigger a fault indication.

Integrated, monitored battery backup

The integrated, maintenance-free 24 V high-power battery supports uninterrupted operation of the voice alarm system for 30 minutes. The integrated and intelligent battery charger is also monitored and can detect a faulty battery by means of the charging current. The integrated batteries take over continuous operation in the event of a mains power fault.

Fault logging and system setup

The integrated 4.3" backlit touchscreen enables users to select alert and evacuations areas as well as adjust navigation volume levels, monitor the configuration of the system and check for faults.

Six independent amplifiers including stand-by amplifier

The 500 W of the VA-500 output can be freely distributed between the zones up to a maximum of 250 W within a single zone. If an amplifier fails, the system automatically switches the loudspeaker lines to the fully independent stand-by amplifier without any loss of function and identifies the faulty amplifier.

Interfaces

The system has one auxiliary input for external sound sources and one line-in, voice-controlled or priority-controlled input.

The seven potential-free inputs connected to a fire detection system or external push buttons. Each of these inputs can be configured for the playback of either evacuation or alert messages, is programmable for each zone or can be used to reset the messages. These lines are also monitored and a break or a short circuit of the lines will immediately trigger a fault indication. Three freely configurable relay outputs are also available.

Loudspeaker line monitoring

All loudspeaker lines are continuously monitored. The monitoring is based upon impedance measurement of loudspeaker lines. This method ensures that a faulty loudspeaker can be detected as well as a fault on the loudspeaker line. Maintenance costs are significantly less than those associated with DC-monitored, systems wherein block capacitors require replacement every few years.

Built-in WAV player for chime/alert messages/evacuation messages

The standard alert and evacuation messages and the broadcast chime are stored on the SD card mounted on the CPU circuit.

In order to customize the system, it is possible to add or update these files. A maximum of 20 WAV files can be added.

Standard EN 54-16

Why voice alarm?

In an emergency, sounders and bells do not communicate the true situation clearly enough to those at risk. This is particularly true of buildings wherein the majority of occupants are not familiar with the evacuation procedures. Emergency situations, by their nature, are unpredictable and liable to change rapidly, therefore the technology employed by detection and alarm systems must enable them to react accordingly. The VA-500 can be converted into VACIE (voice alarm and indicating equipment) by connecting it to a fire alarm system.

What is the aim of a Voice Alarm System?

Being able to broadcast a clear and intelligible message for emergency measures in order to achieve the following objectives

- People in danger take the alert seriously
- People in danger know exactly what to do
- Avoiding panic and wrong actions and improving the reaction time drastically
- Pre-recorded messages ensure that clear instructions on what to do are broadcasted in all cases
- Messages and life-saving instructions can be broadcasted through the fireman's microphone
- **The goal: Saving human life**

Specifications

Rated amplifier output power 230 VAC	500 W/D = 2.5 %
Rated audio output power 24 VDC	400 W/D = 10 %
Display	4.3" backlit with touchscreen (480 × 727 px)
N° of VA-500 units	Max. 6
N° of zones/amplifiers	6
Emergency microphone	Balanced XLR-F on the front
Paging units (DESK)	1 × RJ45 for paging units (PA), max. 12
Emergency units (E DESK)	1 × RJ45 for emergency microphone stations, max. 4
AUX (Line-VOX)	Programmable in ON/OFF/VOX
Music	Balanced with terminals (HOT-COM-GND)
Constant voltage outputs with double lines (A/B)	6 zones for 100 V lines (double output A + B per zone)
Networking	RJ45 for connection with maximum six VA-500
Emergency output	3 monitored relays for signalling
Mains power supply 230 VAC	230 VAC, 50/60 Hz, +10/-15 %, 660 W full load
Secondary power supply 24 VDC (26.3 VDC)	20 A full load
Batteries	W-MS 12/28 (26 + 28 Ah)
Environmental operating conditions	Temperature 5°C to 40°C
Relative humidity	25 % to 75 % without condensation
Type of mounting	Wall mounting
Dimensions (W × H × D)	430 × 620 × 240 mm
Weight without batteries	19.3 kg

VA-500	Compact Voice Evacuation System
VA-FMCT-500	Fireman's call station with touchscreen, without mic.
VA-FMC-512	Fireman's call station for 12 zones, without microphone
VA-MC-506	Microphone console for 6 zones
VA-MC-512	Microphone console for 12 zones
VA-BOX-FMC	Metal box for Firemans call station
VA-MG-001	Dynamic gooseneck microphone
VA-MH-001	Dynamic hand-held microphone