

Swiss Made

Often invisible. But always loud and clear. For over 40 years now, the innovative ideas of g+m elektronik ag have been right at the heart of things. Our electro-acoustic developments set standards on the markets time and time again. Well beyond the boundaries of Europe.

Our brand name stands for Swiss values and for Swiss quality. Lasting and forward-looking. We develop, design and produce trend-setting solutions.

High innovative strength and many years of experience guarantee you long-lasting, high-quality and extremely user-friendly products.

g+m elektronik ag develops and produces in accordance with most recent international standards ISO 9001, EN 54-16, EN 54-17, EN 54-24, NEN 2575 and BS 5839.

Acoustics | Clocks | Evacuation



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VA-450

Reliable in every situation



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VA-450

VOICE EVACUATION SYSTEM



THE ALLROUNDER



Monitored fireman's microphone
The fireman's microphone, which is used to broadcast life-saving instructions in an emergency, is permanently monitored. A fault on the microphone capsule or on the microphone line will immediately signal a fault indication.

Two monitored inputs for trigger of evacuation and alert message
These 2 potential-free inputs, e.g. coming from a fire detection system or from external push-buttons, are used to trigger the evacuation and alert message into all zones. These lines are also monitored and a break or a short circuit of the lines will immediately signal a fault indication.

Integrated and monitored battery backup
The integrated maintenance-free 12 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.

Fault logging
The system can store up to 99 fault messages indicating date and time of occurrence in a non-volatile EEPROM. The data is therefore secure and retained during a total power breakdown.

Built-in stand-by amplifier
The functioning of the 3 x 150 W amplifiers is monitored by an output level measurement. If an amplifier fails, the system automatically switches the loudspeaker line to the fully independent stand-by amplifier without any loss of function and identifies the faulty amplifier.

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 DC monitored systems wherein block capacitors require replacement every few years.

Built-in MP3 module for audio signals – close to CD quality
The integrated MP3 module can memorise up to 8 user-defined MP3 audio files, which are close to CD quality, with a total duration of 14 minutes. The message can be triggered from front mounted push-buttons with flip-top cover or from external potential-free contacts. Audio signals as chime, siren or evacuation and alarm messages may be created on a PC and can be downloaded to the system.

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.

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 make sure, that always a clear instruction of what to do is broadcasted
- Messages and life-saving instructions can be broadcasted through the Fireman's microphone

– **The goal: Saving human life**

Typical applications

Whilst voice alarm systems therefore work well in all buildings, they are particularly beneficial for the following applications:

- Shopping
- Catering
- Schools & Universities
- Sports Centres
- Hospitals & Retirement homes
- Company Buildings
- Public Transport
- Public Buildings
- Specialities like Tunnels, ...

What is the aim of the Standard Norm EN 54-16

The voice alarm system forms a critical part of an evacuation procedure. The standard EN60849 / BS5839 sets out requirements for performance and system integrity to ensure 100% reliability and availability of the voice alarm system.

SPECIFICATITONS

Rated amplifier output power	150 W per amplifier
Amplifier 1	For Zone 1, Zone 2, Direct 1
Amplifier 2	For Zone 3, Zone 4, Direct 2
Minimal load impedance	67 Ω per amplifier
Battery (1 pcs)	12 V/38 Ah
Min. Battery capacity	30 Minutes – battery has to be fully loaded
Power supply fuses (4 pcs)	20 A/32 V
Main fuse (2 pcs)	T2A/250 V
Dimensions (W x H x D)	440 x 380 x 340 mm
Weight	34 kg
Memory per signal	250 kByte
Intervall of the measurements	1 Minute

The VA-450 is a compact all inclusive voice evacuation system already integrating 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, complying with the full scope of standard EN 54-16.

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 announcement into each individual zone in combination with background music completes the high functionality of this compact evacuation system.

- Fully self monitored
- Built-in MP3 module
- 3 fully independent amplifiers 150 W (1 stand-by amplifier)
- 2 monitored inputs for triggering of evacuation and alert messages
- Integrated and monitored battery backup
- Amplifier and loudspeaker monitoring
- Fault logging