

Acoustics | Clocks | Evacuation



# First Class

Clock, PA and evacuation systems in school buildings and sports halls



We have learnt to think in a versatile way and to develop our PA systems in line with many differing requirements. And we keep on learning: the most recent generation of our technology sets standards when the task is to combine various fields of application of sound transmission in a multifunctional way.

# Versatile Hard-working

This results in first-class solutions for schools, colleges, universities, libraries, refectories, multipurpose buildings, seminar buildings and sports halls and on sports grounds. Basically everywhere where people can learn and experience things.

For this, in close cooperation with you, we elaborate an integrated system concept which is matched to needs and applications on site. Depending on requirements, it includes both a time display and time signals and also voice announcements and multimedia transmission technology through to an emergency system to evacuate those in the building. Allow us to advise you. We will match our concepts flexibly to your individual needs.

Numerous references give us top marks for our high-quality systems. Ask us for them. We will be more than willing to show you our «reports».



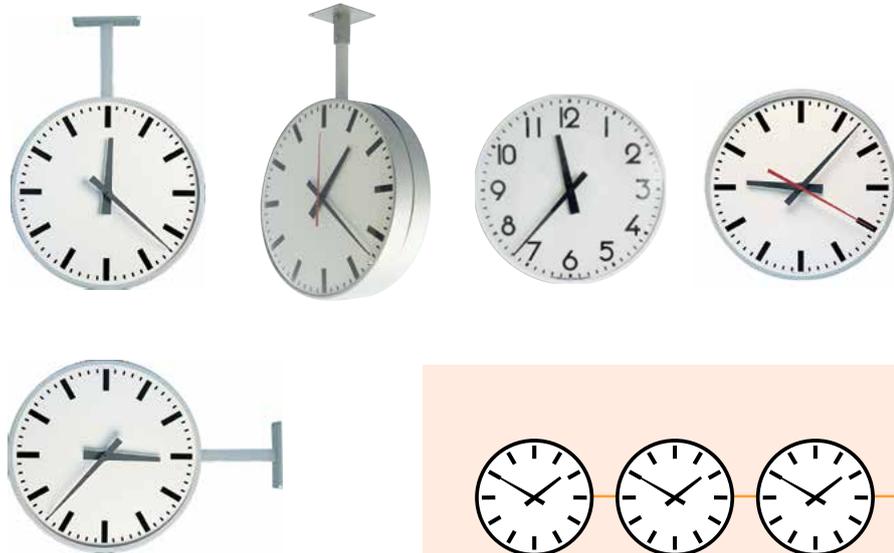
# CONTAINS EVERYTHING

We do our homework very thoroughly at g+m elektronik ag. We have also developed our modular, economical overall solutions for school and university use with great precision accordingly. This already starts with our **break signal** and the **analogue or digital clocks** which are controlled by a master clock.

Many customers have already given us top marks as well for these as they have for the **APS-APROSYS® electro-acoustic emergency-warning system**. Thanks to its excellent acoustic quality, this system solution can help to save lives. Voice instructions are transmitted clearly and intelligibly via the speakers installed in the school building in danger situations.

But not only can the high performance of g+m elektronik ag be heard, it also ensures visibly excellent results: Like our **scoreboards** which can be complemented with the APS-APROSYS® system. Besides displaying the results, it is also possible to provide a voice presentation featuring optimum sound quality. This **combination of image and sound solutions** is top-of-the-class for presentations and events in sports halls and multipurpose buildings.

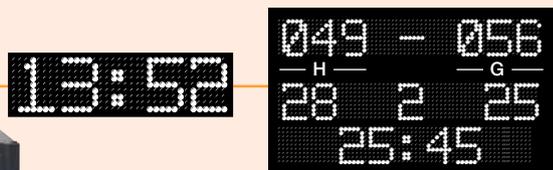
## / Analogue clocks /



## / Accessories /



/ Digital clocks and scoreboards /



Alarm



Heating



Projector with ceiling lift



Panel-mounted screen



/ Loudspeakers /



\_\_\_\_\_ Ceiling Speaker GM-3010

\_\_\_\_\_ Analogue clock GM-XXXX

A large vertical timetable or schedule board mounted on a white wall. It features several colored sections (blue, red, orange, green) and contains text, likely representing a school schedule or class times. The text is small and difficult to read, but the layout is organized into columns and rows.

T 1

## CLOCKS | BREAK SIGNALS ANNOUNCEMENTS | MUSIC

7.30 am. Everyone is talking agitatedly, everyone is laughing and everyone is romping around. Then the bell sounds. Clearly and, of course, accurate to the second. It's a good thing that you can rely absolutely on school clocks from g+m elektronik ag.

Acoustic systems from g+m elektronik prove their worth again and again every school day. To this aim, we develop our solutions precisely in line with the requirements of school operations. Modularity makes it possible that the system, once fitted, can be adapted or further-extended at a later point.

The central element is the master clock with radio receiver which automatically controls all slave clocks and switchover to DST and summertime. It also triggers the break signals for which you can choose between the freely programmable bell melodies. Depending on day, week or public-holiday program.

The master clock has a SD memory card for all programming operations and an interface connection. It can

be integrated in the school's internal network in this way. This means that timetables can be updated in seconds for instance.

Announcements can be transmitted to every classroom or individually selected rooms, to the playground or break area and to the ancillary rooms via digital microphone consoles. All elements are easy to operate and are extremely reliable at the same time.

One special feature of our systems is the high transmission quality. Music and voice signals can be inserted with excellent transmission quality via connected CD players or MP3 players. A real sound experience for school events, exhibitions, celebrations or workshops.



Ceiling speaker GM-4210



Ceiling speaker GM-3310



Compact speaker GM-8082

Scoreboard GM-117621-00



Digital clock  
LUMEX 12



Remote control  
APS-440-A01-19"



Cable-bound  
remote control  
APS-440-A01-H



Ceiling speaker GM-3030



## SPORTS HALLS

The sports hall is bursting at the seams with spectators – everyone is excited about who will win the tournament. But g+m elektronik ag systems will have already scored valuable points, both audibly and visually, even before the match or competition starts. They make every occasion an unforgettable experience.

Whenever people are excited about popular indoor sports, our scoreboards mean that everyone can clearly see what is happening. Controlled by a cable-bound or radio remote control, they provide information on how the game is currently going, the results and the times.

The APS-APROSYS® system is the acoustic heart of our system solutions for sports halls and multipurpose buildings. The great advantage of this multifunctional audio system is that it is easy to operate even if it becomes more and more complex.

During events, the APS-APROSYS® system ensures that the voice signals are reproduced absolutely naturally and with optimum intelligibility. During the event, the room can be subdivided into uniform sound zones to which the signals can be transmitted individually in order to address the spectator groups directly. The sound is distributed uniformly in the relevant transmission zone. You can be sure that there are no disturbing reverberation, sound delays or reflected sound.

Thanks to the integrated equalizer and delay module, the system adapts optimally to the existing character of the relevant room. Wireless microphones guarantee a uniform voice-to-microphone distance and offer announcers maximum freedom of movement.

Special, high-performance speakers with horn systems which radiate the sound optimally are responsible for the excellent sound quality. The APS-APROSYS® system can be used to insert music in high transmission quality for sporting events or theatre performances. Additional bass systems, what are called subwoofers, can be combined with it for this purpose. As an option, you can integrate an induction system in accordance with European Standard EN for the hard of hearing.

Our multifunctional audio system can be relied on absolutely in an emergency: Alarm and voice announcements are triggered automatically or manually. The sports hall audio system can be linked to the bell and evacuation control and indicating panel of the school building for this purpose. It is thus a part of the uniform emergency concept for the overall school.

The complete APS system can be controlled via simply structured audio remote-control points or complex mixing consoles. Digitally programmable remote-control desks ensure a high level of operating convenience and high operating reliability at the same time. The g+m elektronik ag systems are suitable for any event, both large or small, whether you require connected speaker groups, have front or ceiling speakers, be it stage or sports event. A convincing overall solution for every sports occasion.

# SAFETY

Pupils walk calmly through the stairwell. The head's voice can be heard clearly from the speakers. All school classes have already left the building after a short time. g+m elektronik ag's acoustic emergency system has once again proved its worth admirably with this alarm drill.

Speech, language and voice signals are very important in schools. But they play a quite crucial role in an emergency: Pupils and teaching staff are reliant on clear information. How should they behave? What should they do? Announcements which can be heard easily help to calm fears and help people to act quickly.

In this way, acoustic emergency systems make a substantial contribution towards allowing public buildings to be evacuated briskly. People receive clearly intelligible instructions so that they can escape the dangers in targeted manner.

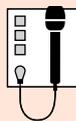
On our modular control and indicating panel system, all emergency

functions are integrated in the bell systems, adapted optimally to the safety requirements of the school. The safety announcements reach everyone throughout the entire school site via the speakers. In order to do this, the head or deputy head can use the microphone console directly or select pre-recorded announcement texts.

One-hundred-percent operational reliability is an absolute must. So g+m elektronik ag systems are certified to EN 54-16. All lines, peripheral points, microphone consoles and speakers etc. are monitored and powered by a separate emergency power-supply system in the event of power failure. This means that the system functions even in emergency situations.



EVAC trip button



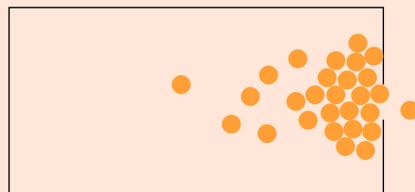
Fire-brigade call point



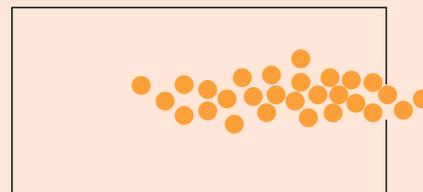
Telephone switchboard



Microphone console



Without an acoustic emergency system: People move uncoordinated. Pushing and shoving may occur in front of the exits, and this costs valuable time.



With an acoustic emergency system, e.g. from g+m elektronik ag: Uniform and orderly movement of all persons towards the emergency exits thanks to clearly intelligible voice announcements.

Ceiling speaker GM-3000

Double sided analogue clock GM-XXXX



## MULTIPURPOSE HALL

A 100 year anniversary is an impressive event. It is celebrated with a splendid concert in the assembly hall. A video which the film group has made and the infants' choir inspire the many invited guests. You can feel the stage fright throughout the entire hall with g+m elektronik ag's multifunctional system.

Image and sound play an equally important role at performances in multipurpose halls such as a school assembly hall. g+m elektronik ag systems allow you to combine the various media perfectly.

The PA and music system focuses on excellent transmission of sound and music to the room. Our audio systems are matched to the room requirements accordingly and can be extended at any time. An additional, integrated induction loop allows the hard of hearing

to receive the interference-free audio signals wirelessly via their hearing aid.

Our audio system can be adapted precisely to operation with an LCD projector for presentations, film shows or image installations. The entire system is operated at separate points conveniently and clearly at the production and direction point. You can select any operating mode, from small occasions to large events.

Subwoofer GM-SUB-100



Compact speaker



Mixing console ARC-XXX



## References

Berufsbildungsschule BBW, CH-Winterthur  
Collège Albert Schweitzer, F-Créteil  
École Boule, F-Paris  
École Polytechnique, F-Paris  
Ernst-Schering-Oberschule, D-Berlin  
Grund- und Realschule, D-Holzkirchen  
Gymnasium Mühleholz, FL-Vaduz  
Kooperative Gesamtschule, D-Altenkirchen  
Lycée Le Corbusier, F-Strasbourg  
Lycée Jean Rostand, F-Strasbourg  
Lycée Sidoine Apollinaire, F-Clermont Ferrand  
Schulzentrum, D-Ettlingen  
Sporthalle Seeblick, CH-Mörschwil  
Weiterführende Schulen, FL-Triesen  
ZHAW, CH-Winterthur

# Swiss Made

g+m elektronik ag, based in Oberbüren, has been developing and producing equipment, components and technology for complex acoustic, clock and evacuation systems for over 40 years.

As a modern, independent company, we develop needs-based, future-oriented engineering solutions for our customers, thereby setting standards in electro-acoustics. Sustainable quality, innovative ideas and continuous advancement are fundamental values that govern our actions.

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