



# SAFETY AT SCHOOLS

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Communication,  
alarms and  
instructions:

the integration of intercom and voice alarm  
systems makes schools safe.

# SAFETY AT SCHOOLS

A safe, fear-free environment is required to allow unconstrained learning.

Schools must be safe. From classroom to auditorium, from the gym to the secretary's office. They need to be safe both on ordinary school days and in emergencies. The use of communication systems in the security concept plays a key role in this regard, as these systems aid in and significantly accelerate both comprehension and crisis management procedures. School administrators and politicians are grappling ever more intensively with this issue.

We have felt strongly about safety in schools for a long time. We have been implementing integrated, customised safety and communication solutions for over 80 years. And we are proud to be able to draw on our technical expertise and the know-how we have acquired over the years to create acoustic solutions that make both teaching and learning safer.

Our holistic security concept, developed specifically for schools, includes an integrated alarm and communication system through which...

- emergencies are immediately reported to a central location
- the nature and extent of the danger are verified via voice communication,
- announcements and instructions are transmitted audibly to all persons in the building, and
- measures to assist and protect students can be taken immediately.
- holistic monitoring of the system is possible, and
- the system can also be used profitably for internal everyday communication.

In short: the functional combination of an intercom and voice alarm system makes it possible to achieve maximum safety. Because **safe** learning is more fun!



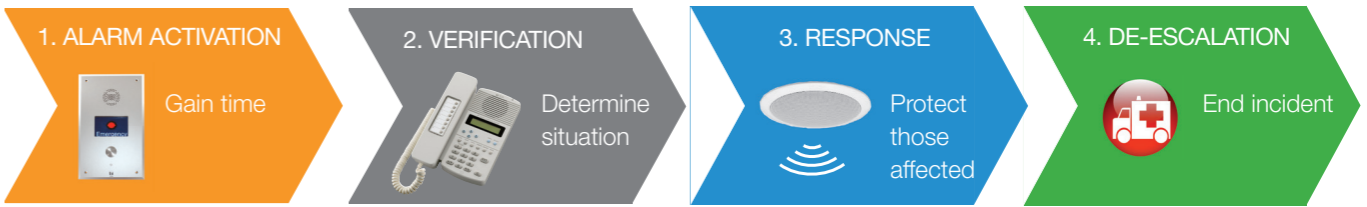
Technical assistance for emergencies and danger in accordance with DIN VDE V 0827.

Most schools already have an organisational plan in place for crisis management. The german DIN VDE V 0827 standard for emergency and danger response systems entered into force in July 2016 with the objective of providing technical assistance for emergencies and dangerous situations.

With this pre-standard, for the first time requirements are now in place governing the technical systems that trigger alarms in dangerous situations, call for help, warn those involved or issue audible instructions. This way the organisational concept can be supported by technology appropriate to the initial situation and the protection objective in each case.

Thanks to the functional connection of the intercom system to a voice alarm system, the TOA security concept brings numerous advantages:

- Voice communication ensures verification of all kinds of emergency situations, thereby enabling an exact description of the situation and helping to avoid false alarms.
- Adequate volume and good intelligibility of the instructions issued are guaranteed.



## Information on the DIN VDE V 0827 standard for emergency and danger response systems.

### Part 1

#### Basic requirements, tasks, responsibilities and activities

- Describes all the processes, from the detection of an incident (emergency, danger) until it has been dealt with
- Includes risk assessment, definition of protection objective, workflow organisation and the technical aid needed in this regard, as well as the specifications for a risk management file.
- Is product-neutral, but does define three different risk classes with the product functionalities required in each case.

### Part 2

#### Supplementary requirements for emergency and danger intercom systems (NGS)

- Valid in conjunction with DIN VDE V 0827-1
- Application of product-neutral functionalities from Part 1 to intercom systems.
- Assists in rapid emergency and danger announcement, verification via voice communication.

# SAFETY AT SCHOOLS

Reliable communication with perfect speech intelligibility even under the most difficult conditions.

## 1 DAILY COMMUNICATION

- The system provides support in everyday communication
- Regular use obviates the need to conduct emergency drills.
- Thanks to its permanent installation, no one need take personal responsibility for keys, codes or battery status.
- Decentralised installation. No server required.



## 3 CHECK SITUATION

- The exact situation in the classroom can be verified over the intercom system.
- Emergency situations of any kind can be described.
- False alarms are avoided.



## 2 TRIGGER ALARM

- Anyone can use the call stations in the classrooms to report a problem immediately and with ease.
- The teacher does not need to leave the room, which saves valuable time.

## 4 ENSURE AVAILABILITY

- If the administrative office is unstaffed, the call is forwarded automatically to the head teacher's office.
- If the head's office is also unstaffed, the call can be forwarded directly to the police/emergency response centre.



## 5 TAKE ACTIONS

- Actions can be initiated immediately and in a targeted manner.



## 7 EXTERNAL COMMUNICATION

- On their way to the school, the emergency responders can patch through announcements to all classrooms by phone, issue instructions or speak directly to affected person/perpetrators.



## 8 DE-ESCALATION

- The integrated alarm and communication system speeds up the process of crisis resolution and ensures maximum safety.



### ACCORDING TO THE FOLLOWING GUIDELINES/STANDARDS:

- DIN VDE V 0827-2 – Emergency and danger response systems
- EN 60849 – Sound system for emergency purpose

# SYSTEM EXAMPLE

The combination of intercom and voice alarm provides maximum safety.

## Police / security

Public telephone network

- N-8000CO**  
IP phone interface for analogue telephone network connection
- Live announcement via the voice alarm system
  - Triggering of control functions for zone selection and alarm
  - Numeric code for access protection

- N-8400RS**  
IP exchange
- For 16 analogue call stations

## Classrooms



- RS-410EC**  
Analogue emergency wall-mounted station
- Suitable for indoor and outdoor use
  - Developed according to DIN VDE V 0827
  - Vandalism-proof (IK10) / IP65
  - 2 call targets can be programmed
  - Emergency call button protected by a glass pane
  - Information call button

## Gym

**HX-5B**  
Variable Arrays



- N-8000DI**  
IP I/O - interface
- For display of fault conditions



- N-8000AF**  
IP audio interface
- For transmission of audio signals and control contacts

LAN

## Head teacher's office

- N-8610RM**  
IP desktop station with gooseneck microphone
- If the head's office is also unstaffed, the call can be forwarded directly to the police/emergency response centre.

## Administrative office

- N-8600MS**  
IP master station
- Voice communication in the classrooms.
  - Verification, issue of direct instructions, live announcements and warning text actuation in all areas via the voice alarm system.
  - If the administrative office is unstaffed, the call is forwarded automatically to the head teacher's office.

## Entrance area

- N-8640DA**  
Barrier-free IP door station
- Designed to comply with the UN convention on the right of persons with disabilities.
  - Visible status indicators: Call, speak, open door
  - Integrated induction loop amplifier
  - IP-65 (IK-7)

- Optional**  
PC for monitoring of the overall system and error display



- VM-3360VA**  
Compact voice alarm system
- Integrated memory for alarm texts and break time bell
  - Complete error detection and display
  - Certified in accordance with EN 54-16
  - Remote maintenance via LAN



- RM-300MF**  
Emergency call station
- For evacuation announcements by the fire brigade



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