

Voice Alarm

Multifunctional Voice Alarm Systems



certified to EN54



NSC-MULTIVES – Flexible Structure

■ The Concept

NSC-MULTIVES-System is designed with a view to a possibility of its versatile application – it is suitable for both, decentralized and centralized systems.

The architecture of this system is based on redundant fiber optic Ethernet connections between control units and other elements of the system which allows for its application in structures most extensive in terms of area and functionality such as air terminals, oil fields and refineries, commercial centers and office complexes.

Compliance with VDE 0833-4 EN 54-16 respectively EN 54-4 (1488-CPR-0500/W).

NSC-MULTIVES is based on the fiber optic technology of digital transmission of voice messages, inclusive alarm messages, commercial messages and music.

The primary task of the system is to cooperate with fire alarm systems and automatic broadcasting of fire hazard messages in the buildings.

NSC-MULTIVES-System comprises control devices, multi-channel Class D-amplifiers as well as fireman microphone consoles and zone microphones.

The system enables digital scaling communication not only among all the elements of the system but other integrated safety systems as well.





ABT-CU-11LCD



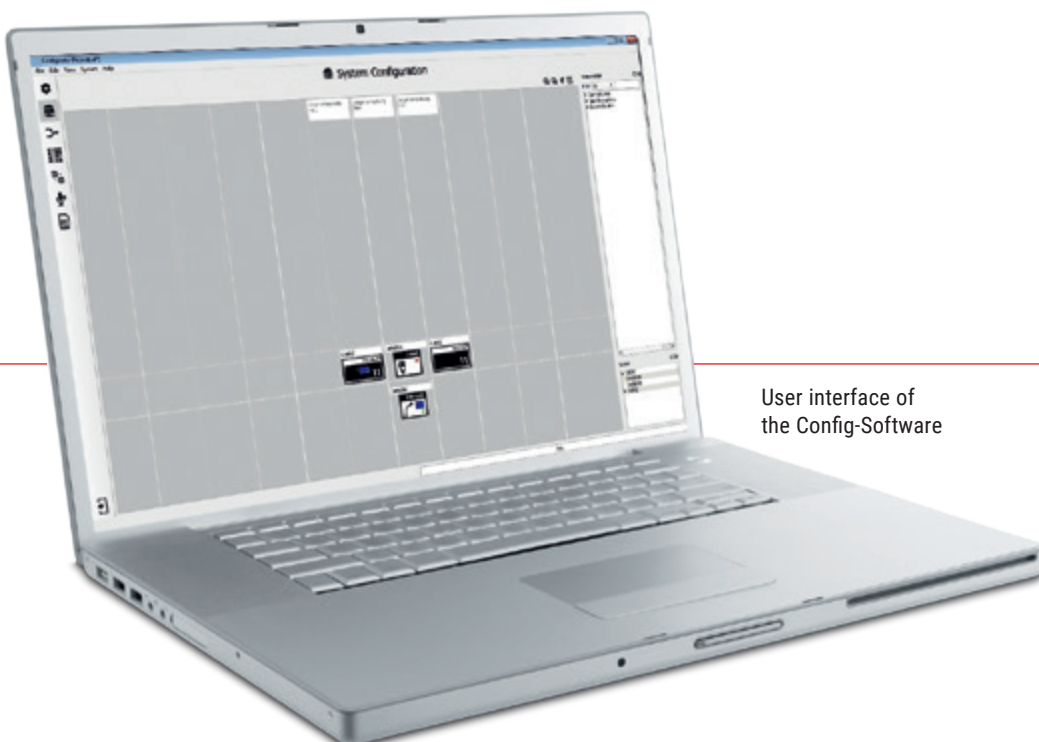
ABT-CU-11LT



ABT-CU-8LCD

■ Main Parameters of the NSC-MULTIVES-System:

- Versatile system with voice alarm controllers ABT-CU-11LCD, ABT-CU-11LT and ABT-CU-8LCD, certified in accordance with VDE 0833-4 EN 54-16/ EN 54-4 (1488CPR-0500/W)
- Fully network-based system allowing for configuration, control and diagnostics via Ethernet
- All voice alarm controller can be operated as stand-alone as well in (redundant) networks
- Each voice alarm controller can be configured at any position of the system across all devices.
- LCD-Touchpanel (ABT-CU-8LCD/CU -11LCD)
- 28 global audio channels
- Up to 11 channels of 800W/100V, 44 loudspeaker-lines (ABT-CU-11 LCD/LT)
- Max 254 units in the network
- Up to 32 GB SD flash memory dedicated for playback and recording messages (48 kHz, 16 bit)
- Maximum number of simultaneously played messages limited to the number of the loudspeaker line control cards in the system
- Intercom function between all microphones in the system



User interface of the Config-Software

- External audio inputs in every control units and zone microphones
- Variable loudspeaker line monitoring (impedance, EOL or loop technology)
- Very flexible two step extension of loudspeaker lines in 2 (1 A/B) or 4 (2 A/B).
- DSP with implemented 3 band parametric EQ on all inputs on control units, 8 band parametric EQ, delay lines (up to 30 sec.), audio limiter and feedback eliminator on each of the audio outputs
- Complex control inputs/outputs and RS485 interfaces for Fire Alarm Systems and BMS integration
- **Monitored exclusive interface according to VDE 0833-4 to the NSC fire alarm system allows individual programming via NSC programming tool**
- Redundant (Loop) network communications between VES-Controller, fire-panel and zone microphones via fiber optic.
- Remote management via Ethernet

NSC-MULTIVES

Voice-Alarm with LOOP-technology and following features:

- Up to 800 Watts per loop
- Up to 200 Isolator Modules per loop
- T-branch
- Up to 25 speakers per Isolator Modules
- Error detection, localization and activation of the Isolator Module within 3 seconds



■ ABT-DFMS Fireman Microphone

The NSC-MULTIVES fireman microphone is a monitored external device cooperating with control units in a redundant communication ring. It can thereby perform a superior function of a system control unit, too.

A fireman microphone is used to induce alarm announcements as well as general announcements, to choose individual zones and to broadcast live voice announcements. It is equipped with programmable function buttons with the help of which functions chosen may be arbitrarily assigned.

Up to five ABT-EKB-20M extensions with additional function buttons may be attached to a fireman microphone.

The microphone is able to automatically detect a button failure and an audio path to the microphone capsule.

A fireman microphone is also equipped with an intercom function and is able to communicate with each other microphone in the system.

Zone Microphones

Upgradeable
for every application



■ ABT-DMS Zone Microphone

This zone microphone is used to induce general announcements, to choose individual zones and to broadcast live voice messages. It is connected directly to a selected control unit or via an additional Ethernet switch. A zone microphone is supplied with power locally or from a control unit via PoE. It is equipped with programmable function buttons which may arbitrarily be assigned selected functions.

All the parameters needed for operation of a worksite can be programmed: assignment of zones to various buttons, naming of zones and zone groups, priorities, access to various announcements, voice level adjustment, "push to talk"

button, music on/music off and music routing. LEDs on the ABT-DMS give also information about existing fault in the system, fault in specific speaker zones, evacuation mode on and type of announcement on the zone (BGM, EVAC, Warning, Fireman microphone).

A zone microphone offers a possibility of connecting up to 5 ABT-EKB-20M extension with additional function buttons to it. As a fireman microphone it is also equipped with an intercom function and is able to communicate with each other microphone in the system.

Up to 253 (fire-panel and zone) microphone units can be integrated within one system.



Characteristics

- Monitored microphone and connection of the microphone module to the system
- Dedicated evacuation button
- 3 fully programmable buttons and a possibility of connecting up to 5 20-button extensions
- Built-in 2 contact inputs and 2 relay outputs
- PoE or external feeder based power supply
- Black-box function – recording all announcements played back during an alarm
- Built-in SFP modules and CAT5e for simplicity of implementation of the loop topology
- RS 485 for communication with external systems
- Intercom function between all fireman and zone microphones

Characteristics

- 4,5" LCD-Touchscreen for fast and clear system management
- Monitored connection of the connecting line
- 9 fully programmable buttons with a possibility of extension up to 5 20-button modules
- 4 audio inputs
- Stereo jack connector
- Built-in speaker
- Stereo jack sockets for Headset
- Implemented intercom function
- Power supply via PoE
- Message storage if zone is busy

■ ABT-DMS-LCD Zone Microphone with LCD-Touchscreen

Zone microphone with same functions as ABT-DMS, but in addition equipped with an LCD-Touchscreen.

■ ABT-EKB-20M Microphone Keyboard Extension

Each extension attached to a fireman microphone or a zone microphone offers an additional 20 function buttons.



Characteristics

- Monitored connection of the connecting line
- 9 fully programmable buttons with a possibility of extension up to 5 ABT-EKB-20M
- 4 audio inputs
- Built-in speaker
- Stereo jack sockets for Headset
- Implemented intercom function
- Power supply via PoE
- Message storage if zone is busy

■ NSC-MULTIVES 100V-Class D-Amplifier

All NSC-MULTIVES Class D-Amplifiers are according to EN 54-16.



ABT-PA8080B Class D-amplifier, 8 x 80 W, bridgeable to:	1 x 160 W + 6 x 80 W; 2 x 160 W + 4 x 80 W; 3 x 160 W + 2 x 80 W or 4 x 160 W
ABT-PA8160B Class D-amplifier, 8 x 160 W, bridgeable to:	1 x 320 W + 6 x 160 W; 2 x 320 W + 4 x 160 W; 3 x 320 W + 2 x 160 W or 4 x 320 W
ABT-PA2650B Class D-amplifier, 2 x 650 W, bridgeable to:	1 x 1300 W

The amplifiers are 2 U high, 19" rack mountable.

■ Power Supply

The **ABT-PSM48**-Power Manager is used to provide the main and standby power supply in accordance with EN 54-4. Also it controls the charging of 48 V emergency power batteries.

Emergency power batteries can be used with a capacity up to 200 Ah.

