

## WM-ELISA II

### Public address with a clear voice



Centralized information management and train control ask for remote PA systems which can be installed flexibly in railway stations. With **Wenzel MACS-ELISA II**, Wenzel's remote PA system, you can project a clear voice to the farthest stop on your line. The connection via an IP network considerably reduces transmission costs by the use of off-the-shelf transmission technologies. With Multicast protocols (IGMP) for group announcements and with local storage of automatic announcement texts best use of the bandwidth is achieved.

Interfaces for analogous and ISDN transmission lines available in WM-ELISA II simplify the integration with installed acoustic equipment and therefore ease the migration to IP based PA systems.

WM-ELISA II can be adapted to local requirements regarding the number of the loudspeaker circuits and the necessary safety level.

Additional power amplifiers, speaker lines or local consoles can be added to WM-ELISA II at any time.

Comprehensive monitoring of all system components (including all connected loudspeakers) and automatic malfunction signaling facilitate a simple and efficient service.

WM-ELISA II conforms to Deutsche Bahn „Operative System Requirements for Public Address V1.6“ and to „Equipment Specification for Platforms V2.2“.

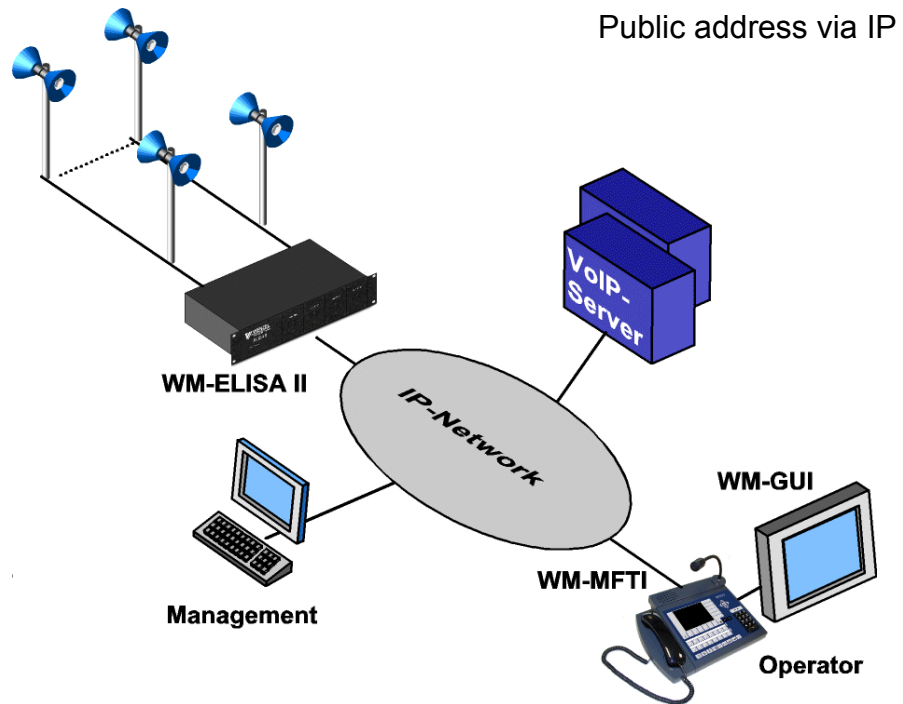
WM-ELISA II can be connected to IP networks, ISDN or analogous transmission lines. Combining these connection types, transmission networks can be used redundantly, and WM-ELISA II remains accessible in case of network failures.

Since voice and data can be transmitted on separate Ethernet links with dedicated quality of service, use of cost effective network technology is possible.

Local consoles or legacy acoustic equipments can be connected directly via four analogue NF inputs and galvanic isolated control lines of the WM-ELISA II.



WM-ELISA II can be equipped with up to four 100W or two 250W power amplifier modules. The high efficiency of the digital Class-D amplifiers permits a compact construction form. The amplifiers are monitored during operation, and in case of any failure a redundant amplifier replaces the faulty one. All parameter settings will be maintained by the redundant amplifier. Plug-in modules accessible at the front-sided can be swapped during operation. Swapped and intact amplifier modules are recognized automatically and will operate without further interventions. The 100V outputs of the amplifier modules can be cross-connected with up to eight loudspeaker lines.



Announcements can be blocked or can preempt an existing announcement according to a multi-stage priority matrix and a local busy state. During the announcement the power output is monitored in relation to the input level, and the announcer receives a positive or negative acknowledgment during or after the announcement according to configuration.

The integrated automatic announcement function of the WM-ELISA II allows an event-dependent or event-driven announcement via a standardized SES/XML interface. This allows a transfer of simple text messages that are converted as announcements via the built-in TTS.

Successful announcements via ISDN are signaled by call-back or acknowledgment tone. To prevent permanent busy lines, WM-ELISA II can be configured to automatically release a line after time out.

All loudspeaker circuits are monitored on short circuit, ground and interruption without influencing active announcements. Defect loudspeaker lines are automatically detected and reported.

Optionally the sound level can be adjusted for every amplifier based on ambient noise.

### Features

- VoIP PA system with standardized SIP/RTP/RTCP protocols
- Multicast supports for effective use of bandwidth (IGMP)
- Up to four 100W or two 250W amplifiers
- Up to eight loudspeaker lines selectable
- High availability due to redundant amplifier and redundant connection to different transmission technologies
- Automatic announcement function
- Text-to-Speech
- SNMP failure management
- Compliant to requirements for equipment level 1 of DB AG

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