DIVA

Audio system for Public Address and Evacuation (EN 60849/BS 5839 part 8)

DIVA8M *responds to public address requirements and Voice Alarm* **EN 60849/BS 5839** *compliance for small to medium installations.*

The **DIVA8M** module unit houses: audio digital signal processing (DSP), a matrix, a digital message player, a fully monitored fireman microphone, amplifiers monitoring with switchover to backup amplifier and loudspeaker lines monitoring. It can process and route one **PSSxxDT** security microphone console or up to eight cascaded **PSM** paging microphones and two 0 dB audio plus one Mic/Line inputs into 2 different channels (Music + Voice). Each input is fitted with volume controls and equalizers. All audio inputs feature contact and VOX activation (ideal when using the cordless microphone, for example).

Up to 45 minutes of digital messages can be downloaded and recorded as WAV files directly from a computer into **DIVA8M**. Two messages can be played simultaneously in different zones. One of the messages can be used as a chime for the **PSS** microphone. Nine monitored evacuation inputs making it possible to obtain the pre-programmed routings.

Each **DIVA** module has eight output zones with a+b wiring. Each zone can be routed manually or automatically to one of the system's audio channels (Music and Voice). The number of zones can be extended up to 128 zones with DIVA8MS slave module. The two Music signals can be switched ON/OFF in each zone separately. In case of Evacuation, the Music channel can be used as a second alarm channel.

A **DIVA** system requires only one 2 channel amplifier (one for Music, one for Voice). The Music amplifier will act as a backup amplifier in case of the Voice amplifier failure. Each channel can handel up to 500 W of audio power (100 V).

From the front panels, the user can manually route the fireman microphone signal and three digital messages into the selected zones, adjust the audio level and switch (ON/OFF) the music source in each zone separately. In case of evacuation, the zones attenuators are automatically bypassed.

One output contact per zone (eight per unit) can be activated each time the zone is occupied with a source having a higher priority than the music (Alarm or microphone paging…).

As an **EN 60849** security system, all **DIVA** components and peripherals are constantly monitored (without music interruption). All incidents are recorded into a data file which can be consulted on the **DIVA** display or on a PC. Also any detected faults and alarm status are signalled by general fault and alarm output contacts. A local loudspeaker enables selective listening to all the sources and the system's output signals. The setup of **DIVA** is realised through a PC computer and the **PCDIVA** configuration software (Windows compatible). Access can be password-protected. The routing and the level of the music sources can be controlled directly from the **PSS** microphone.

All these features make **DIVA** the ideal system for shopping malls, hotels, restaurants, museums and many other public
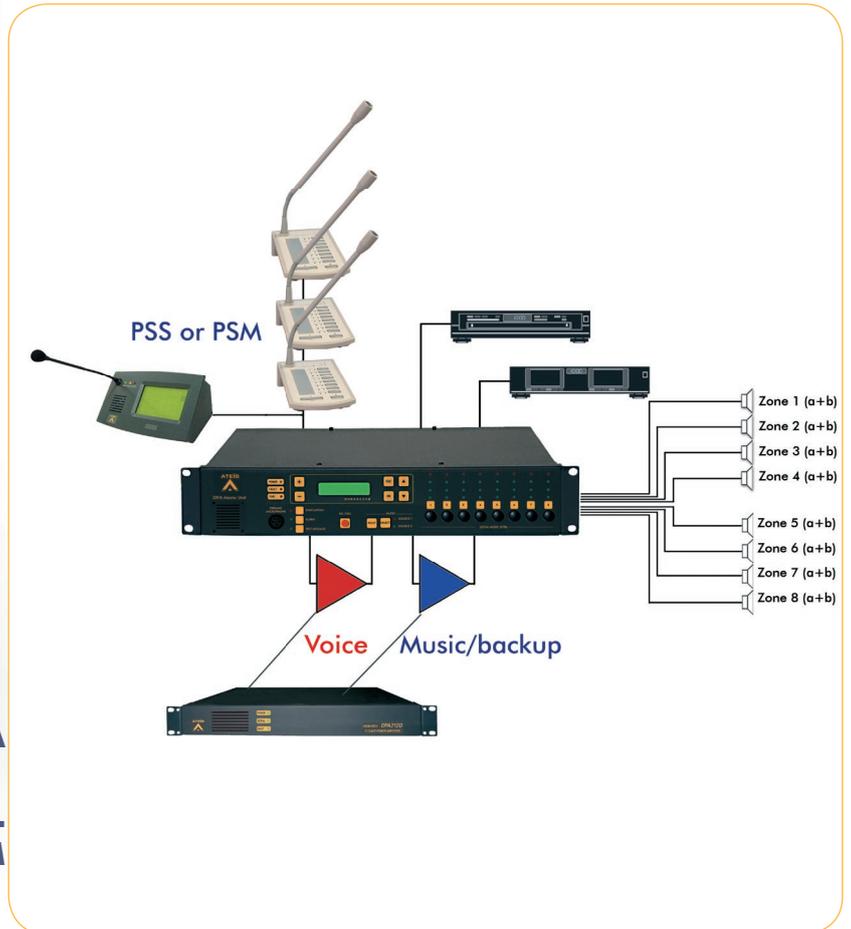
MAIN PROPERTIES

- ☐ 5 audio inputs (2 x line, 1x MIC/line, 1 x PSS or PSM, 1 Fire Mic.).
- ☐ Integrated and monitored Fireman microphone.
- ☐ Monitoring of 8 Loudspeaker zones (a+b).
- ☐ Full monitoring of PSS and PSM microphone consoles.
- ☐ Digital message players up to 45 min.
- ☐ Parametric equalization: 3 bands on inputs, 7 bands on the two outputs channels.
- ☐ Low and high pass filtering on inputs.
- ☐ 21 priority levels

- ☐ 4 user levels
- ☐ 8 logic input contacts.
- ☐ 9 evacuation input contacts (with surveillance).
- ☐ 2 fault input contacts
- ☐ 8 output relay contacts.
- ☐ Incident data record with up to 2047 incidents.
- ☐ Possibility to store the event log file on a computer.
- ☐ Internal scheduler.

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FUNCTIONNAL DIAGRAM

PSS or PSM

Voice   Music/backup

Zone 1 (a+b)
Zone 2 (a+b)
Zone 3 (a+b)
Zone 4 (a+b)
Zone 5 (a+b)
Zone 6 (a+b)
Zone 7 (a+b)
Zone 8 (a+b)

TECHNICAL PROPERTIES

0 dB Inputs / Outputs	Microphones input impedance: 10 kOhms (balanced, CAT5 terminal) Input sensitivity: 0 dB Music input impedance: 10 kOhms (RCA terminal) Input sensitivity: 0 dB Audio output impedance: 50 Ohms (balanced, screw terminal)	Output levels: 0 dB Max input/output level: +14 dBu Audio bandwidth: 10 Hz to 22 kHz Sampling: 48 kHz 24 bits Distortion: 0.02% to 1 kHz Output noise: <-84 dBu Lin, <-88 dBu A-weighted Output dynamic: >98 dBu Lin, >102 dBu A-weighted
100 V Inputs/Outputs	Max power: 500 W per DIVA unit. Amplifier gain measurement: 18 kHz Line impedance measurement: 100 V 18 kHz Ground fault measurement under: 12 VDC 0 to 10 MOhms	
Digital-audio messages	Bandwidth: 20 Hz to 8 kHz Sampling: 16 kHz 16 bits total length : 45 mins	
Alarm/Contact Inputs Outputs	9 alarm inputs 8 PA contact inputs 2 contact input : power fault or battery backup fault	8 contact outputs 2 contact output (on/off control): "fault synthesis" + "evacuation underway"
Serial connections per DIVA module	1 RS485 connection to PSSxx DT or PSM 1 RS485 connection to next DIVA module 1 RS232 for third party control (MOD BUS) Ethernet port for PC communications	
DIVA Module Size and enclosure	Metal enclosure: 2U 19" grey RAL 7016 Width x Depth x Height : 430 x 230 x 88 mm	

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