

DSE-1800S ELECTRONIC SIREN

Digitex has been manufacturing the DSE series electronic sirens since 1985. They are modern, reliable and robust modular devices intended to alert the public in life-threatening situations. DSE sirens are the main component of public warning systems. Because of high protection rating the systems can operate in different climate zones.

INTENDED USE

The DSE series sirens are used for alarming the public (Civil Defence of the country, Fire Service, areas with high risk of contamination or threatened with terrorist attacks), evacuation of people (production halls, military facilities, airports, industrial areas, stadiums) and to play irregular records.

CONTROL OPTIONS

DSE sirens can be controlled by digital or analog radio networks, IP network, wireless communication and traditional telecommunications network or leased lines.

digital:

- PC-550 module for digital transmission (IP - LAN/WAN, RF - NXDN),
- DIP-14 additional module for PC-550 (IP - VPN, GPRS, RF – MOTOTRBO, TETRA).

analog:

- MDS-25 module for the digitexCZK/system.

local:

- signal generator with a control manipulator equipped with keyboard and embedded LCD screen,
- RS-232, RS485/422, CAN, I²C and USB interface,
- SZS-24 (GPS/DCF) clock controller,
- microphone for voice announcements signal generator with a control manipulator equipped with keyboard.

DSE electronic sirens are controlled with a control manipulator (locally) or with an alarm unit, web application or desktop application (remotely).



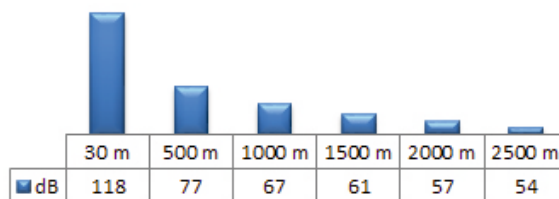
ADVANTAGES AND FUNCTIONS

- Modular structure which can be extended depending on the current or future needs.
- Emission of any voice messages (live or recorded, on site or from remote location) and other irregular records (e.g. national anthem).
- Possibility of macro-sound combination e.g.: • voice message • alarm voice • message.
- Activation of special functions and reading the status via GSM (SMSs).
- Siren activation with a text to speech technology.
- Omnidirectional or directional sound propagation characteristics suited to the local conditions and customer's requirements.
- Data transmission encrypt with the AES-128 algorithm and additionally with the RSA encryption algorithm for IP - controlled sirens (LAN/WAN).
- Low power consumption (230 V/50 Hz).
- Emergency power supply: maintenance-free gel cell batteries.
- Long service life and resistance of the loudspeakers to atmospheric conditions.
- Control block box protection: IP-66.
- Cooperation with external equipment, such as e.g. meteo stations, gas sensors, radioactive contamination sensors, water level measurement points and air quality meters.
- Quick and professional warranty and after-sales service within the authorised service network.



SOUND REACH

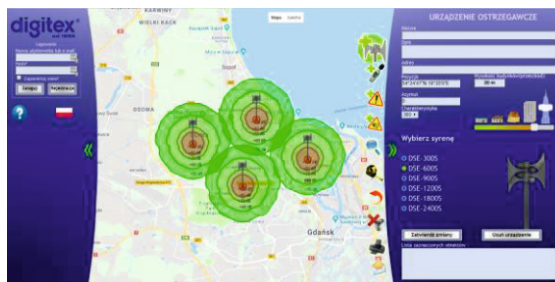
Audibility of the DSE-1800S electronic siren mainly depends on the environment noise and land topography. The power and quantity of sirens needed to cover the area with the warning system should depend on the land development and atmospheric conditions that can attenuate the system operation.



Reach of the sound at a medium noise level (70 dB) in a city, at all-round arrangement of the loudspeakers (180°)

COVERAGE MODELLING

The **SOUND COVERAGE SIMULATOR PRO** application available at <http://zasiegipro.digitex.pl/> helps to design the arrangement of sirens in the selected area. The application visualises the coverage of the siren sound, taking into account propagation of sound, nearby buildings, environmental noise etc.



TECHNICAL PARAMETERS

Output power	1800 W
SPL sound pressure level (bidirectional, 180°)	118 dB(A)/30 m
SPL sound pressure level (unidirectional, 0°)	124 dB(A)/30 m
Number of loudspeakers	12
Number of amplifiers	6 x 300 W
Sound frequency	dual tone 400 ÷ 430 Hz
Transmission band	≥ 300 ÷ 5000 Hz
Main power supply	230 V +/- 10%
Emergency power supply	2 x 12 V (80 Ah) AGM
Power consumption (in stand by mode)	on average 6 W
Power consumption during charging	max. 150 W
Number of alarms with emergency power supply	up to 20 x 1-minute alarms (24 h after main power outage)
Working time with emergency power supply (in stand by mode)	up to 30 days
Operating temperature	SLOTTED LOUDSPEAKER: from -30°C to +70°C CONTROL BLOCK: from 0°C to +50°C
Dimensions/ weight	SLOTTED LOUDSPEAKER: 610 (H) x 600 (L) x 140 (W) mm/ 8 kg CONTROL BLOCK: 600 (H) x 600 (L) x 250 (W) mm/ 30 kg (without batteries and additional equipment)
Material	SLOTTED LOUDSPEAKER: aluminium alloy CONTROL BLOCK: metal housing, 2 locks
Protection grade	IP66
Warranty	24 months (battery: 12 months)

