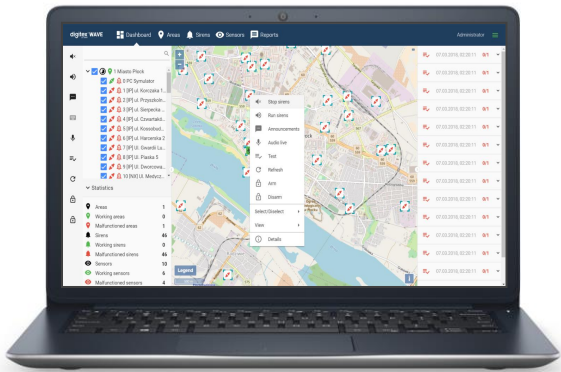# digitexCZK/IP® Wave dispatcher public warning software

Advantages & Functions

digitexCZK/IP® DISPATCHER SOFTWARE

Depends on requirements there is possibility to use two kinds of dispatcher software in the system:

► PC Windows application

► WEB application accessible by desktop PC, tablet, Smartphone

GENERAL FEATURES

► Multiple user support with access control

► Support for multilevel dispatching centers

► Raster map for better orientation and easier decision-making

► Possibility to create a management hierarchy: main, backup, sub control centers

► Automatic or manual siren testing

► Logging of all events in the system

► Live voice messages to each selected siren ant text to speech (optional)

► Visualization of data of all system elements: RPD, sirens, water level sensors, meteorological station, contamination meters etc.

## GENERAL DESCRIPTION OF digitexCZK/IP® DISPATCHER SOFTWARE

► When logging in to the siren management system (via the website), the user must provide user name (first level of verification) and password (second level of verification). When trying to start sirens, you must enter the PIN - the third level of verification
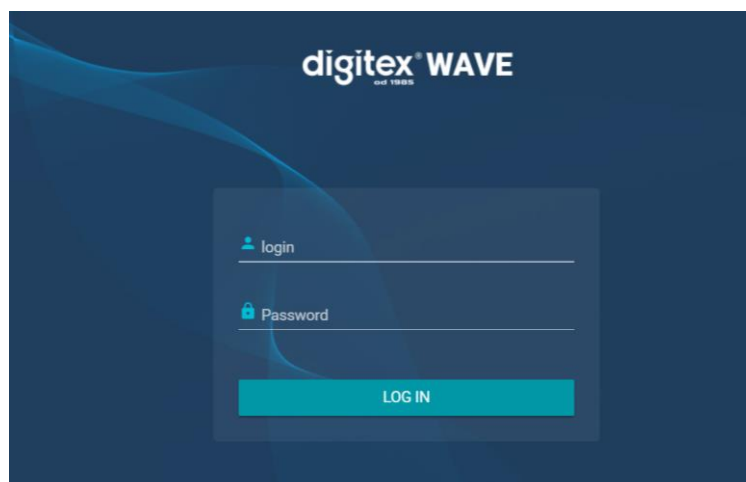
▶ scaled region map based on the OpenStreetMap license operating in offline mode with the possibility of applying alarm sirens and peripheral devices by the operator (external sensors such as meteorological station, contamination sensor, etc.) using GPS geographical coordinates.

▶ possibility to choose standard or satellite map
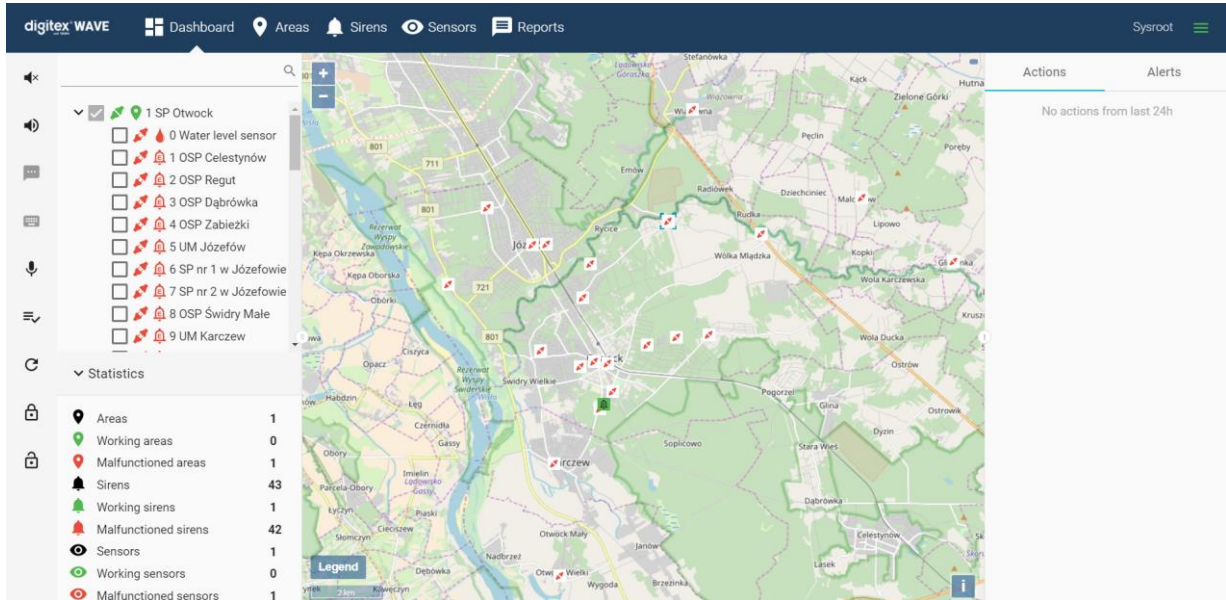
▶ Training Mode – the user can work on Training Mode without possibility to make laud alarms
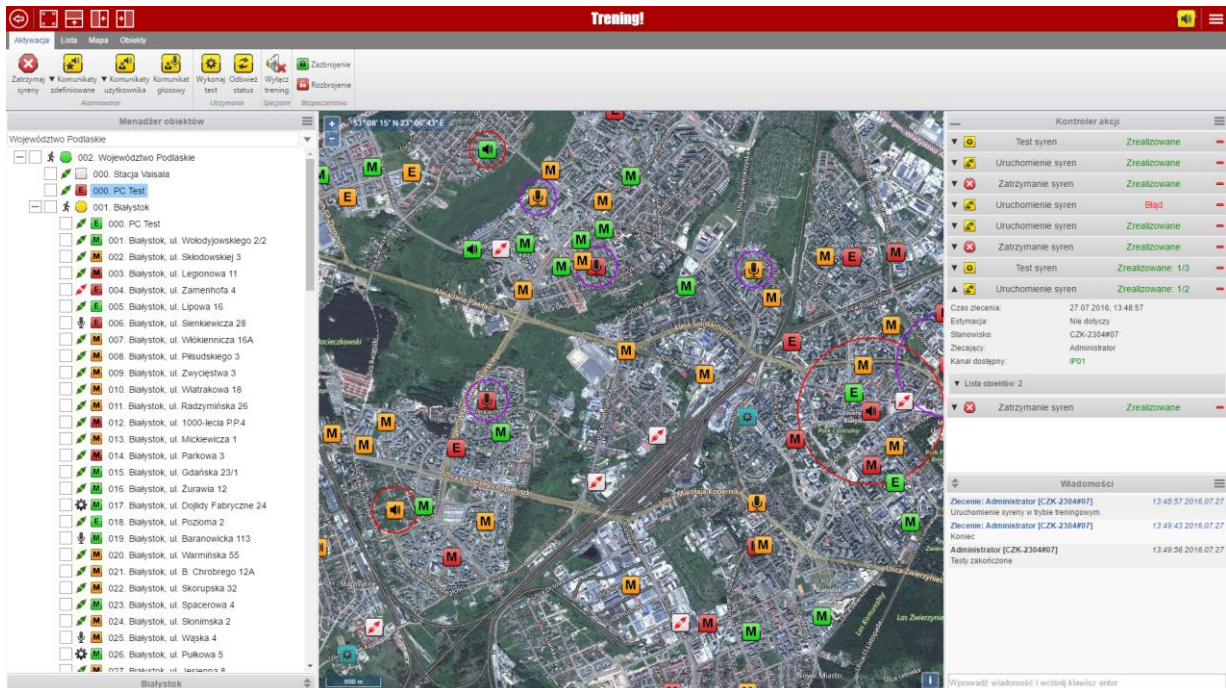
► configuration of all devices: adding / deleting / editing / handling alarm sirens, control panels, weather stations, contamination sensors, etc.

► activation of alarms, live voice messages, testing, from the built-in keypad, microphone and control device software
► possibility to control the sirens throw: IP/GSM, VHF digital or analog radio, VSAT
► manual by user or automated by sensors triggering the sirens

► configuration of different kind of sensors: chemical, metrological stations, water level sensors

| Status	Name	Kind	Read type	Read value	
	107. Ul. Gwardii Ludowej 7	Amonia sensor	----	----	⌄
	199. ul. Górna 56	Chlorine sensor	----	----	⌄
	104. ul. Czwartaków 6	Meteo station Davis	----	----	⌄
	200. Czujnik chloru	Chlorine sensor	07.03.2018, 14:04:00	30.12 [ppm]	⌄
	201. Czujnik amoniaku	Amonia sensor	07.03.2018, 14:04:00	40.995 [ppm]	⌄
	202. Czujnik skażeń	Bio hazard sensor	07.03.2018, 14:04:00	30.114 [ppm]	⌄
	203. Czujnik promieniowania	Radiation sensor	07.03.2018, 13:57:00	0 [uSv/m]	⌄
	204. Czujnik poziom wody	Limnimeter	----	----	⌄
	205. Stacja meteorologiczna	Meteo station Davis	07.03.2018, 13:57:00	19.3 [°C] 3.10 [m/s] --- [hPa]	⌄
	206. Stacja VAISALA	Meteo station Vaisala	07.03.2018, 14:00:00	-3.1 [°C] 11.16 [m/s] --- [hPa]	⌄

Total: 10

► logging of all events in the system with a time stamp, possibility to print in PDF or XLS format

digitex WAVE   Dashboard   Areas   Sirens   Sensors   Reports   Administrator ≡

Events log   Historical technical alarms   Avtive technical alarms   Sensors   User's log

Time	Failure	Object	State	Level	Confirmed
03.03.2018, 10:32:14	Sabotaż syreny	0. PC Symulator	Inactive	Krytyczny	Confirm
22.02.2018, 22:37:15	Brak połaczenia WPD	Wyniesiony punkt dostępowy nr 00	Inactive	Krytyczny	Confirmed, 03.03.2018, 09:40:53
03.03.2018, 10:40:47	COM port error	Punkt dostępowy nr 02	Active	Krytyczny	Confirm
22.02.2018, 11:26:14	Awaria wzmacniacza	0. PC Symulator	Inactive	Krytyczny	Confirmed, 03.03.2018, 09:40:54
22.02.2018, 10:37:24	Brak połączenia z syreną	Brak danych	Active	Krytyczny	Confirmed, 03.03.2018, 09:40:54
22.02.2018, 10:37:24	Brak połączenia z syreną	45. ul. Sikorskiego 8	Active	Krytyczny	Confirmed, 03.03.2018, 09:40:55
22.02.2018, 10:37:24	Brak połączenia z syreną	44. ul. Wolskiego 10	Active	Krytyczny	Confirmed, 03.03.2018, 09:40:56
22.02.2018, 10:37:24	Brak połączenia z syreną	43. ul. Kościuszki 28	Active	Krytyczny	Confirmed, 03.03.2018, 09:40:56
22.02.2018, 10:37:24	Brak połączenia z syreną	42. ul. Piaska 1	Active	Krytyczny	Confirmed, 03.03.2018, 09:40:56
22.02.2018, 10:37:24	Brak połączenia z syreną	41. ul. Mazura 6	Active	Krytyczny	Confirmed, 03.03.2018, 09:40:57
22.02.2018, 10:37:24	Brak połączenia z syreną	40. ul. Ciechomicka 15	Active	Krytyczny	Confirm
22.02.2018, 10:37:24	Brak połączenia z syreną	39. ul. Otolińska 25	Active	Krytyczny	Confirm
22.02.2018, 10:37:24	Brak połączenia z syreną	38. ul. Kościuszki 6	Active	Krytyczny	Confirm
22.02.2018, 10:37:24	Brak połączenia z syreną	37. ul. Hermana 1	Active	Krytyczny	Confirm

Total: 39 |◄   ‹   1   2   3   ›   ►|

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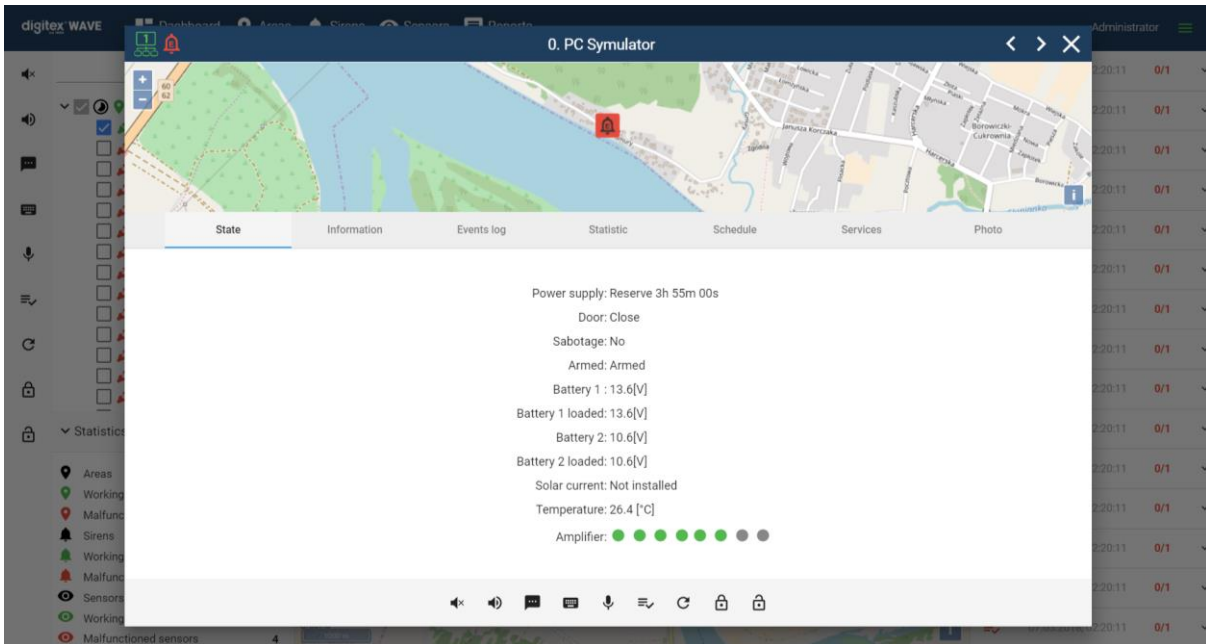
► configuration of different kind of users and unique permissions
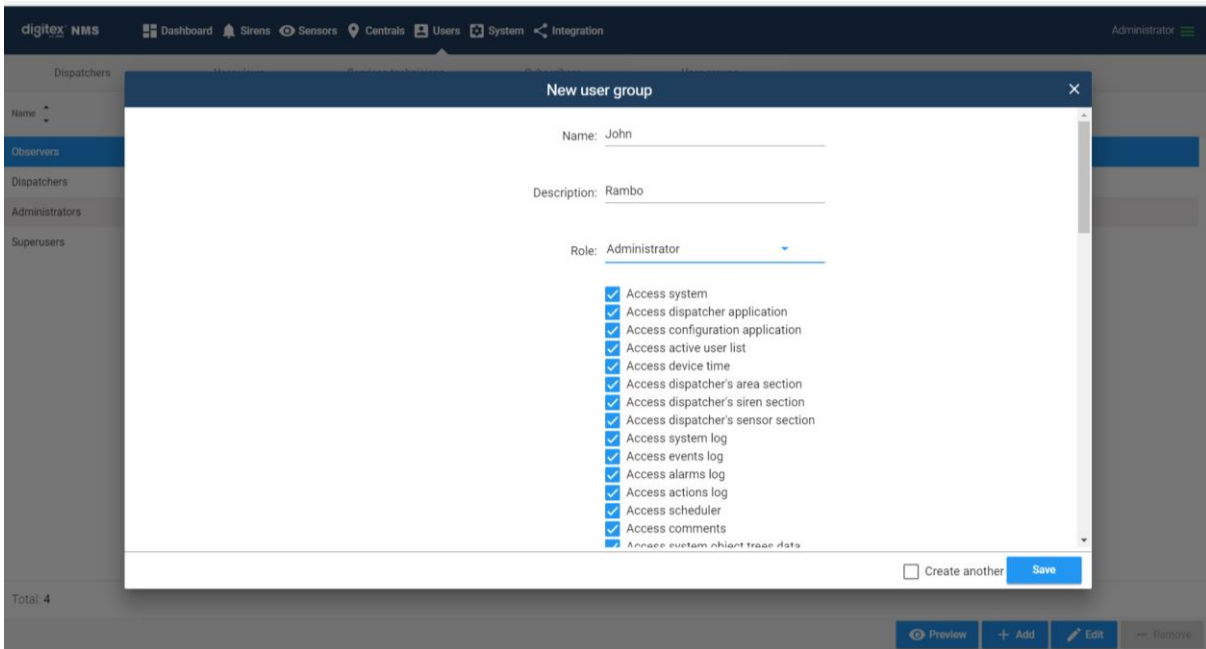
► tests reports about siren's statuses
► silent tests

► task scheduler – can execute supported actions at the specified time.

Active	System ID	Kind	Month	Day	Day of week	Hour	Minute	Type	Channels
✓	SO-1595#01	System	All	All	All	2	20	Test	Default
✓	SO-1595#02	System	All	All	All	2	20	Test	Default
✓	SO-1595#03	System	All	All	All	2	20	Test	Default
✓	SO-1595#04	System	All	All	All	2	20	Test	Default
✓	SO-1595#05	System	All	All	All	2	20	Test	Default
✓	SO-1595#06	System	All	All	All	2	20	Test	Default
✓	SO-1595#07	System	All	All	All	2	20	Test	Default
✓	SO-1595#08	System	All	All	All	2	20	Test	Default
✓	SO-1595#09	System	All	All	All	2	20	Test	Default
✓	SO-1595#10	System	All	All	All	2	20	Test	Default
✓	SO-1595#100	System	All	All	All	2	20	Test	Default
✓	SO-1595#101	System	All	All	All	2	20	Test	Default
✓	SO-1595#102	System	All	All	All	2	20	Test	Default
✓	SO-1595#103	System	All	All	All	2	20	Test	Default
✓	SO-1595#104	System	All	All	All	2	20	Test	Default

Total: 45

1 2 3

DSE-300M MOBILE ALARM SIREN

In addition to alerting people in life threatening situations, the DSE-300M mobile alarm siren also features an information function, e.g. during evacuation or to provide any information to the public. Mobile siren complements the equipment of emergency, rescue and military services. It allows providing information to any place that is beyond the reach of stationary alarm sirens.

ADVANTAGES AND FEATURES

▶ RANGE

The 300W DSE-300M mobile alarm siren is provided with two aluminium speakers with unidirectional sound propagation characteristics and SPL intensity 109 db(A)/30m. Depending on the terrain the range of the siren covers 1.5 km

▶ CONTROLS

The siren can be operated locally from the control panel installed at the siren, remotely – by radio, if it works in the existing digitexCZK/IP public warning system or via TCP/IP

▶ VOICE MESSAGES

DSE-300M enables playback of recorded messages and transmission of live voice messages

▶ MOBILITY

The main feature of the DSE-300M siren is its mobility. The siren is installed on a special, mobile trolley, thanks to which, it can be moved practically without the use of force

▶ MAST

The DSE-300M siren speakers are mounted on a pneumatic speaker mast of adjustable height up to 3.6 meters

▶ STABLE DESIGN

The metal structure with adjustable and foldable supports ensures siren stability

▶ POWER SUPPLY

Built-in, maintenance-free batteries allow the siren to operate in unusual and hard-to-reach locations
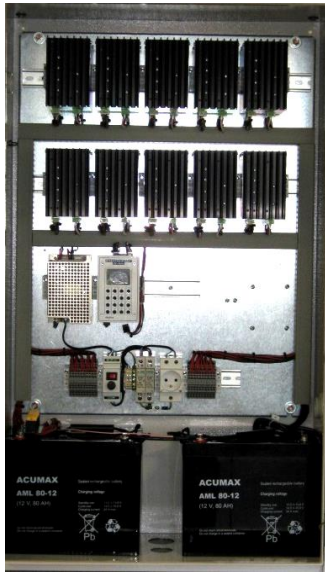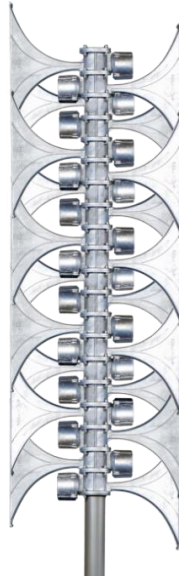
TECHNICAL DATA

Power output	**300W**
Sound Pressure Level (0°)	109dB(A)/30m
No. of speakers	2
No. of amplifiers	1x300W
Sound frequencies	dual tone, 400 ÷ 430Hz
Sound transmission band	≥300 ÷ 5000Hz
Main Power supply	230 VAC +/- 10 %
Power supply	2 x 12VDC (33Ah) AGM
Power consumption (standby)	average, 6 W
Power consumption during charging	max 150 W
No. of alarms on standby power	up to 20 x 1-minute alarms (24 h after switching off the main power supply)
Operating time on back-up power supply (standby)	up to 30 days
Operating temperature	between -20 ºC and +60 ºC
Dimensions/ weight	1830 (H) x 700 (W) x 1050 (D) mm (brackets: 2 x 1250, 1 x 960 mm) / 90 kg
Mast	adjustable height up to 3.6 meters
Materials	SLOTTED SPEAKERS: aluminium alloy CONTROL UNIT: fiberglass
Degree of protection	IP65
Siren life	min 30 years
Warranty	24 months

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DSE ELECTRONIC SIRENS

Advantages & Functions

Control block with exemplary equipment

Example of mounted horns

DSE ELECTRONIC SIRENS

These modern, high-powered warning sirens are used to warn people of ecological, military, terrorist, catastrophic and other hazards. Electronic sirens are designed to be mounting on the roofs of buildings, posts, masts and inside large industrial facilities.

MAIN FUNCTIONS

- ▶ Warning people and rescue services of a hazard
- ▶ Generating civil defence and fire service alarms
- ▶ Transmitting voice messages about hazards

APPLICATIONS

- ▶ Emergency management centres alarm networks
- ▶ State and voluntary fire service alarm networks
- ▶ Industrial facilities
- ▶ Nuclear power plants
- ▶ Military bases / airports

GENERAL FEATURES

- ▶ Integration of civil defence and fire service systems

- ▶ Management by dispatcher software in two alternatives: WEB or Windows PC desktop application

- ▶ Local control by the local manipulators built in the siren's cabinet

- ▶ Digital communication systems: IP GSM 3G/4G, optional radio VHF/UHF (DMR MotoTrbo® - Motorola solution, FDMA NEXEDGE® - Kenwood solution), optional VSAT

- ▶ Generates any type of sound e.g. bugle calls, ringing bells, chimes

- ▶ Emergency power supply (maintenance-free batteries)

- ▶ API for integration with external IT/PA systems

- ▶ Additional equipment – see: catalogue sheet of DSE series electronic sirens, additional equipment

Available power output from 300 W to 3000 W

Sound Pressure Level from 103dB(A)/30m to 123dB(A)/30m

Horns made of a light aluminium alloy (durability: 30 years)
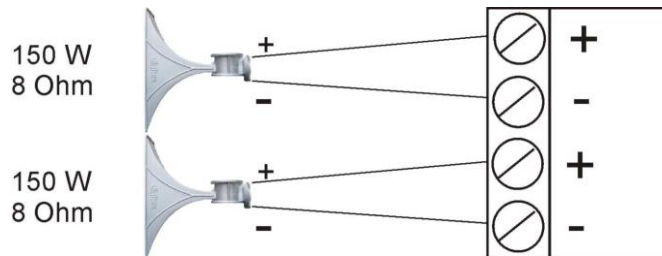
Directional or omni-directional sound coverage

Conforms to CE standards

DSE ELECTRONIC SIRENS MODULES SPECIFICATION

▶ **AMPLIFIER WSE-300**

Output power 300W. One amplifier operates with two speakres.

Connecting speakers to the amplifier

▶ **PC-550A CONTROL MODULE**

PC-550A is fitted with illuminated LCD display and a manipulator for local operation of all the siren functions. The controller display shows current information of the siren condition, e.g. type of feeding, battery charging degree, etc. The generator has an alarm control station function which protects the control unit against unauthorized access. The siren central controller is fitted with an extra piezoelectric buzzer.

With the use of the controller, it is possible to access a series of functions performed by the siren:
  ▶ Presentation of DSE general status
  ▶ Triggering alarms
  ▶ Triggering user defined messages
  ▶ Switching the audio path on for live voice messaging
  ▶ Testing

- ► Arming/ disarming the warning control station
- ► Checking the siren settings for service needs
- ► Controlling warning lamp
- ► Anti-burglar protection

The main screen presents actual information of siren's status:
- ► Siren ID
- ► System time
- ► Charging current of the solar panel
- ► Result of the last conducted amplifiers test (O – ok / X – error / - – no amp / ? – no data)
- ► Battery voltage (separately for each battery)

► SOLAR CONVERTER Steca 10.10F

The charge controller in a solar system is a device necessary for the proper operation of the entire system. It is a connector between photovoltaic panels and the battery and receivers. This charge controller ensures that parameters such as current and voltage at the output of the solar panel are transformed so that the battery is charged with the appropriate current and voltage. The omission of the regulator in this system would result in a significant reduction of battery life and its complete deterioration. In addition, the regulator ensures that energy transmitted from loads to the battery is used rationally. This means that when the battery is discharged below the safe level, the regulator disconnects the load, thus preventing excessive discharge of the battery and shortening its service life.

CHARACTERISTIC

- ► Automatic detection of 12V / 24V voltage
- ► PWM charging
- ► Protection against deep discharge
- ► Automatic switching after disconnection
- ► Possible grounding on the clamp
- ► Temperature compensation of the charging voltage
- ► Monthly service charge
- ► Twilight switch

PROTECTION

- ► Battery overcharge
- ► Deep discharge of the battery
- ► Replace poles on each of the inputs / outputs
- ► Short-circuit (except battery)
- ► Overvoltage at the panel input
- ► Before the return current to the panel
- ► Overheating and overloading

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TECHNICAL SPECIFICATIONS

System voltage	12V (24V)
Own consumption	< 4 mA
Permissible short-circuit voltage of solar panels (V$_{oc}$)	< 47 mA
Maximum input current	10A
End of charging	13,9V (27,8V)
Service charge	14,4V (28,8V)
Switching on after disconnection	>50% / 12,4V … 12,7V (24,8V … 25,4V)
Battery disconnection	<30% / 11,2V … 11,6V (22,4V … 23,2)
Working temperature	-25ºC - +50ºC
Terminals size	4 mm^2 / 6 mm^2 – AWG 12/9
Protection	IP32
Dimensions: length / height / depth	145 x 100 x 30 mm
Weight	150g

▶ **ZSE-24 POWER SUPPLY**

The power supply provides energy for charging 2 pcs of 12V batteries connected in series. The module has short-circuit, anti-overload and overvoltage protection. Voltage and battery temperature measurement systems with the used algorithms supervise the optimal parameters of the loading and unloading process. The built-in balancing system balances the voltage of both accumulators (with an accuracy of 0.1 V), which translates into their longer life. The temperature compensation of the charging process affects the maximum voltage level to which the batteries will be charged according to the recommendations of the battery manufacturer. The higher the temperature, the lower the maximum voltage that the batteries will reach and vice versa - the lower the temperature, the higher the battery voltage will be. Additionally, the power supply is signaled by means of LEDs, among others no mains voltage or disconnection of one or both accumulators.

▶ **DIP-14 IP MODULE**

The IP/VPN DIP-14 module is responsible for compiling a secure, encrypted communication channel VPN (Virtual Private Network) within the Internet. This mechanism increases the security of the system and simplifies the configuration of network infrastructure.

DIP-14 extends the functionality of the siren to Text-To-Speech. It involves locally generating a voice message from text sent from CS without having to stream the audio stream "live". This ensures a reduction in occupancy of the transmission medium used.

TECHNICAL SPECIFICATIONS

Description	IP / VPN network control module based on dual-core CPU ARM 32-bit, 1GB DDR3 SDRAM, 120GB SSD, OS Linux
Power consumption	24 V DC / 0.17 A DC
Network interfaces	4x Gigabit LAN, 1x Gigabit WAN, 1x WLAN 802.11b/g/n
Serial interfaces	4x RS-232, 1x USB 2.0 HOST, 1x micro-USB 2.0 OTG
A/V interfaces	1x HDMI, 1x 3,5 mm LINE OUT
Power indication	1 LED diode (red)
Failure indication	1 LED diode (green)
Working temperature	-30°C to +70°C
Dimensions and weight	155 mm x 113 mm x 30 mm, 535 g

ELECTRONIC SIRENS – TECHNICAL SPECIFICATIONS

Model	DSE-300S	DSE-600S	DSE-900S	DSE-1200S	DSE-1500S	DSE-1800S	DSE-2400S	DSE-3000S
Output power	300 W	600 W	900 W	1200 W	1500 W	1800 W	2400 W	3000W
SPL bi-directional horns	103 dB(A)/ 30 m	109 dB(A)/ 30 m	112 dB(A)/ 30 m	115 dB(A)/ 30 m	116 dB(A)/ 30m	118 dB(A)/ 30m	121 dB(A)/ 30 m	123 dB(A)/ 30 m
SPL one-directional horns	109 dB(A)/ 30 m	115 dB(A)/ 30 m	118 dB(A)/ 30 m	121 dB(A)/ 30 m	122 dB(A)/ 30m	124 dB(A)/ 30 m	127 dB(A)/ 30 m	129 dB(A)/ 30 m
Number of horns	2	4	6	8	10	12	16	20
Number of amplifiers	1 x 300 W	2 x 300 W	3 x 300 W	4 x 300 W	5 x 300 W	6 x 300 W	8 x 300 W	10x300 W
Basic frequency	dual-tone: 400-430 Hz (frequency range: from 300 Hz up to 5000 Hz)							
Memory for the recordings	2GB up to 16GB							
Main power supply	220 – 240 VAC / 50 – 60 Hz (110 – 250 V / 50 Hz)							
Backup supply – solar panels	100 W – 250 W						Optional: 2 x 100 W – 250 W	
Emergency power supply (maintenance-free batteries)	2 x 12 V 33 Ah up to 80 Ah	2 x 12 V 50 Ah – 120 Ah					Optional: 4 x 12 V 75 Ah – 80 Ah	
Power consumption in stand-by mode (without additional accessories)	max. 3 W							
Battery charging current (depends on installed equipment)	max. 3 A						max. 10 A	
Number of alarms with emergency power supply	7 days + 5 x 6 min alarms							
Time of operation without main power supply (*stand-by* mode)	up to 30 days in *stand-by*							

Control options (digital transmission up to 9600 bit/s, *preferred*)	▶ PC-550 digital control module for DMR (TDMA) and NEXEDGE (FDMA) ▶ IP (LAN/WAN, VPN, WiFi, WiMax, VSAT) ▶ GSM/GPRS/3G/LTE/CDMA ▶ interfaces: USB, RS-232, RS485/422
Control options (analogue transmission up to 1200 bit/s)	▶ Radio VHF/UHF (FSK)
Control options (local)	▶ wall mounted manipulator with microphone ▶ desk manipulator with microphone ▶ clock controller SZS-24 ▶ DMR-150 microphone ▶ digital inputs (up to 15 alarms)
Types of sounds	▶ 64 alarm signals (rerecorded on SD card) ▶ 64 voice messages (rerecorded on SD card) ▶ real-time voice messages from the control centre ▶ Text to speech (not all languages)
Operating temperature	▶ aluminium horns: -30°C to +70°C ▶ control block (IP55 indoor): 0°C to +50°C ▶ control block (IP65 outdoor): -20°C (-30°C as an optional) to +65°C
Dimensions (H x W x D) / Weight	▶ aluminium horns: 610 x 600 x 140 mm/ 8 kg ▶ control block (standard DSE-300S - DSE-1800S): 600 x 600 x 250 mm/ 30 kg without batteries ▶ control block (DSE-2400S and DSE-3000S): 1000 x 600 x 250 mm/ 50 kg without batteries
Control cabinet material	▶ metal housing with powder coating, RAL 7035, 2 locks, IP55/ IP65 for outdoor anti-burglary internal unit
Horn material	▶ aluminium alloy ▶ optional anti-mosquito protection

DSE-3000S 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 components of public warning systems. Owing to 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 (bases), 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/FSK system

local

▶ signal generator with a control manipulator equipped with keyboard and embedded LCD screen
▶ RS-232, RS485/422, CAN, I^{2}C and USB interface
▶ SZS-24 (GPS/DCF) clock controller
▶ microphone for voice announcements

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 for outdoor option
▶ Cooperation with external equipment, such as e.g. meteo stations, gas sensors, radioactive contamination sensors, water level measurement points and air quality meters
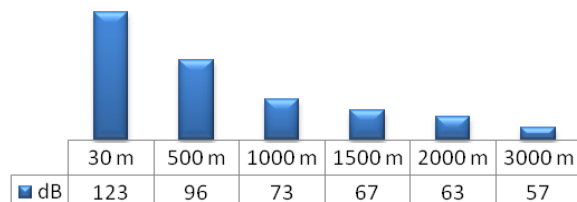▶ Quick and professional warranty and after-sales service within the authorised service network

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TECHNICAL PARAMETERS

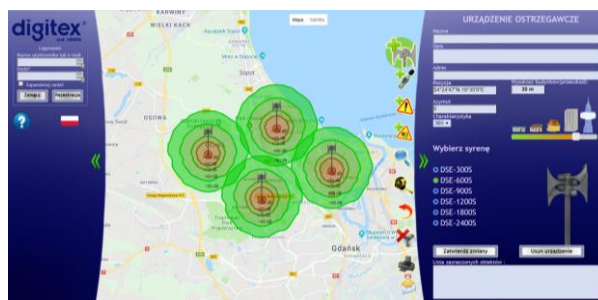|	
Output power	**3000 W**
SPL sound pressure level (bidirectional, 180°)	123 dB(A)/30m
SPL sound pressure level (unidirectional, 0°)	129 dB(A)/30m
Number of loudspeakers	20
Number of amplifiers	10 x 300 W
Sound frequency	dual tone 400 ÷ 430 Hz
Transmission band	≥300 ÷ 5000 Hz
Main power supply	230V +/- 10%
Emergency power supply	2 x 12V (80Ah) AGM
Power consumption (in stand by mode)	max. 3 W (without additional equipment)
Power consumption during charging	Max. 150 W
Number of alarms with emergency power supply	up to 20 x 1-minute alarms (24h 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: indoor system: from 0°C to +50°C outdoor system: from -25°C (-30°C as an optional) to +65°C
Dimensions/ weight	SLOTTED LOUDSPEAKER: 610 (H) × 600 (L) × 140 (W) mm/ 8 kg CONTROL BLOCK: 1000 (H) × 600 (L) × 250 (W) mm/ 50 kg (without batteries and additional equipment)
Material	SLOTTED LOUDSPEAKER: Aluminium alloy CONTROL BLOCK: indoor system: metal housing, 2 locks outdoor system: metal housing, 2 locks, sun roof
Protection grade	indoor system: IP55 outdoor system: IP66
Warranty	24 months

SOUND REACH

Audibiity of the DSE-3000S 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.

	30 m	500 m	1000 m	1500 m	2000 m	3000 m
dB	123	96	73	67	63	57

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 ZASIĘGI PRO (Coverage 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.

Design and check the coverage of sirens in your area:

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 components of public warning systems. Owing to 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 (bases), 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/FSK system

local

► signal generator with a control manipulator equipped with keyboard and embedded LCD screen
► RS-232, RS485/422, CAN, I^2C and USB interface
► SZS-24 (GPS/DCF) clock controller
► microphone for voice announcements

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 for outdoor option
► Cooperation with external equipment, such as e.g. meteo stations, gas sensors, radioactive contamination sensors, water level measurement points and air quality meters
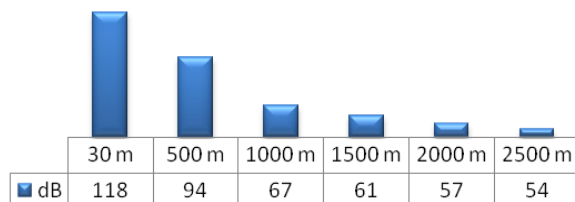► Quick and professional warranty and after-sales service within the authorised service network

TECHNICAL PARAMETERS

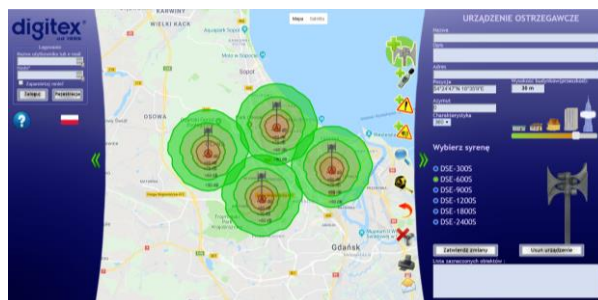|	
Output power	**1800 W**
SPL sound pressure level (bidirectional, 180°)	118 dB(A)/30m
SPL sound pressure level (unidirectional, 0°)	124 dB(A)/30m
Number of loudspeakers	12
Number of amplifiers	6 x 300 W
Sound frequency	dual tone 400 ÷ 430 Hz
Transmission band	≥300 ÷ 5000 Hz
Main power supply	230V +/- 10%
Emergency power supply	2 x 12V (80Ah) 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 (24h 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 +60°C CONTROL BLOCK: indoor system: from 0°C to +50°C outdoor system: from -30°C to +65°C
Dimensions/ weight	SLOTTED LOUDSPEAKER: 610 (H) × 600 (L) × 140 (W) mm/ 8 kg CONTROL BLOCK: 600 (H) × 600 (L) × 250 (W) mm/ 30 kg (without batteries and additional equipment)
Material	SLOTTED LOUDSPEAKER: Aluminium alloy CONTROL BLOCK: indoor system: metal housing, 2 locks outdoor system: metal housing, 2 locks, sun roof
Protection grade	indoor system: IP55 outdoor system: IP66
Warranty	24 months

SOUND REACH

Audibiity 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.

	30 m	500 m	1000 m	1500 m	2000 m	2500 m
dB	118	94	67	61	57	54

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 ZASIĘGI PRO (Coverage 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.

Design and check the coverage of sirens in your area:

DSE-900S 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 components of public warning systems. Owing to 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 (bases), 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/FSK system

local
▶ signal generator with a control manipulator equipped with keyboard and embedded LCD screen
▶ RS-232, RS485/422, CAN, I^{2}C and USB interface
▶ SZS-24 (GPS/DCF) clock controller
▶ microphone for voice announcements

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 for outdoor option
▶ Cooperation with external equipment, such as e.g. meteo stations, gas sensors, radioactive contamination sensors, water level measurement points and air quality meters
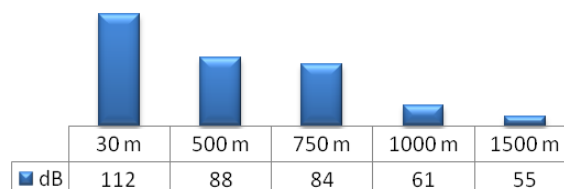▶ Quick and professional warranty and after-sales service within the authorised service network

TECHNICAL PARAMETERS

Output power	900 W
SPL sound pressure level (bidirectional, 180°)	112 dB(A)/30m
SPL sound pressure level (unidirectional, 0°)	118 dB(A)/30m
Number of loudspeakers	6
Number of amplifiers	3 x 300 W
Sound frequency	dual tone 400 ÷ 430 Hz
Transmission band	≥300 ÷ 5000 Hz
Main power supply	230V +/- 10%
Emergency power supply	2 x 12V (50/55Ah) AGM
Power consumption (in stand by mode)	max. 3 W (without additional equipment)
Power consumption during charging	max. 150 W
Number of alarms with emergency power supply	up to 20 x 1-minute alarms (24h 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: indoor system: from 0°C to +50°C outdoor system: from -25°C (-30°C as an optional) to +65°C
Dimensions/ weight	SLOTTED LOUDSPEAKER: 610 (H) × 600 (L) × 140 (W) mm/ 8 kg CONTROL BLOCK: 600 (H) × 600 (L) × 250 (W) mm/ 30 kg (without batteries and additional equipment)
Material	SLOTTED LOUDSPEAKER: Aluminium alloy CONTROL BLOCK: indoor system: metal housing, 2 locks outdoor system: metal housing, 2 locks, sun roof
Protection grade	indoor system: IP55 outdoor system: IP66
Warranty	24 months

SOUND REACH
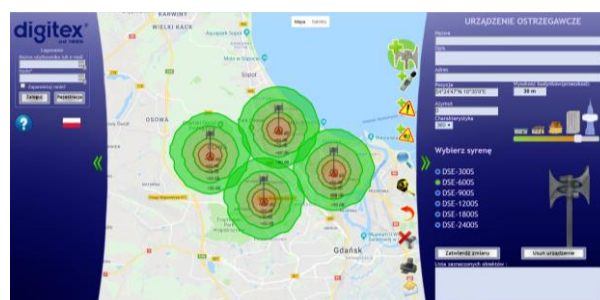
Audibiity of the DSE-900S electronic siren mainly depends on the environment noise and land topography. The power and quantity of sirens needed to cover the area with the warning system should depend on the land development and atmospheric conditions that can attenuate the system operation.

	30 m	500 m	750 m	1000 m	1500 m
dB	112	88	84	61	55

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 ZASIĘGI PRO (Coverage 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.

Design and check the coverage of sirens in your area:

DSE-600T 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 components of public warning systems. Owing to 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 (bases), 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/FSK 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

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 for outdoor option
- ▶ 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
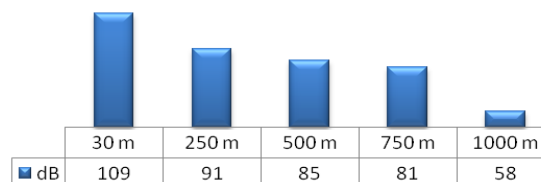
TECHNICAL PARAMETERS

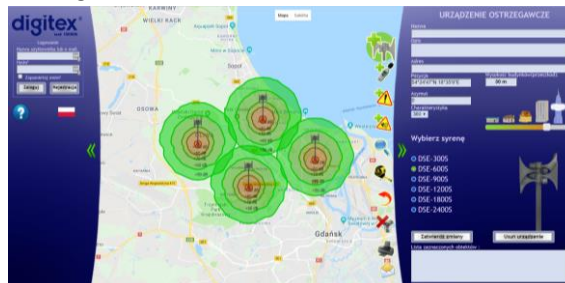|	
Output power	**600 W**
SPL sound pressure level (bidirectional, 180°)	109 dB(A)/30m
SPL sound pressure level (unidirectional, 0°)	115 dB(A)/30m
Number of loudspeakers	4
Number of amplifiers	2 x 300 W
Sound frequency	dual tone 400 ÷ 430 Hz
Transmission band	≥300 ÷ 5000 Hz
Main power supply	230V +/- 10%
Emergency power supply	2 x 12V (33Ah) AGM
Power consumption (in stand by mode)	max. 3 W (without additional equipment)
Power consumption during charging	max. 150 W
Number of alarms with emergency power supply	up to 20 x 1-minute alarms (24h after main power outage)
Working time with emergency power supply (in stand by mode)	up to 30 days
Operating temperature	TUBE HORN LOUDSPEAKER: from -30°C to +70°C CONTROL BLOCK: indoor system: from 0°C to +50°C outdoor system: from -25°C (-30°C as an optional) to +65°C
Dimensions/ weight	TUBE HORN LOUDSPEAKER: φ510x420 mm / 4 kg CONTROL BLOCK: 600 (H) × 600 (L) × 250 (W) mm/ 30 kg (without batteries and additional equipment)
Material	TUBE HORN LOUDSPEAKER: thin aluminium alloy CONTROL BLOCK: indoor system: metal housing, 2 locks outdoor system: metal housing, 2 locks, sun roof
Protection grade	indoor system: IP55 outdoor system: IP66
Warranty	24 months

SOUND REACH

Audibiity of the DSE-600S 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.

	30 m	250 m	500 m	750 m	1000 m
dB	109	91	85	81	58

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 ZASIĘGI PRO (Coverage 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.

Design and check the coverage of sirens in your area:

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