

INDUSTRIAL SECTOR

Digital Public Warning and Notification System
digitexCZK/IP®



digitex®
since 1985

CONTROL OF THE SYSTEM

System can be easily controlled from windows based or web application. Additional control is possible from local DMO-700 manipulator and mobile devices, such as smartphones or tablets.

one SYSTEM with many POSSIBILITIES



DMO-700 MANIPULATOR with the Panic Button function for local system start-up on a specific facility. It is designed to control sirens (electronic and electromechanical) in the following ways:

- ✓ **LOCAL** – by pressing the button on the manipulator's housing or using the microphone connected to the manipulator.
- ✓ **REMOTE** (radio or LAN transmission) – from the Dispatcher Centre (with **digitexCZK/IP®** software connected to a digital radio) and from the Facility Alert Centre level (using **digitexCZK/IP®** software).



DSE ELECTRONIC SIRENS are inseparable part of the **digitexCZK/IP®** system. In addition to the sound alarms they enable transmission of live voice messages – remotely from the dispatcher's unit and locally from the microphone. DSE sirens also are capable of announcing any sound messages saved in the memory (wav or mp3 format files).



The sudden occurrence of hazards, such as fires, explosions and toxic substance leak is highly probable in the industrial sector. **digitexCZK/IP®** Digital Public Alert and Warning System has been created in order to improve the communication in situations particularly dangerous and demanding prompt intervention. The implementation of **digitexCZK/IP®** warning system affects the improvement of safety level and protects the health of employees potentially exposed to risk caused by the occurrence of a danger.

PUBLIC ALERT AND WARNING SYSTEM **digitexCZK/IP®**

The proprietary design by PLATAN is the only warning system in Poland, which uses, in addition to analogue, also digital radio communication in DMR (TDMA) and NXDN (FDMA) standards and also IP computer networks (LAN, WAN) with the use of secured VPN.

In 2013 **digitexCZK/IP®** system was awarded the „State Security Leader“ prize granted by the State Security Office, under the auspices of the Head of the Country Civil Defence.

THE MOST IMPORTANT CHARACTERISTICS OF THE SYSTEM



ALWAYS SAFE!

The transmission is encrypted with at least AES-128 key and protected by access to the system by means of a login and password.



BACKUP CONTROL UNIT!

The backup control unit with its own radio station providing cooperation in case of sabotage or main system failure.



HIGH LEVEL OF WARNING AGAINST DANGERS!

The system provides a high level warning against accidents in the sector of hazardous substances handling.



LOW SERVICING COSTS!

Diagnostics and configuration changes to the system are carried out remotely, by experienced technical support personnel.



The System provides the possibility of simultaneous management of all devices from any place worldwide.



DATA VISUALISATION ALWAYS UPDATED!

The data in the system are updated on an ongoing basis. The user is provided with information on the siren's technical condition, parameters, date and location of installation (photograph included), warranty length, etc.



TESTS PLANNED!

The system enables creation of any self test schedules.



IMMENSE CONFIGURATION POSSIBILITIES!

The system enables prompt change of configuration and adaptation of the functionalities to the user's needs.

MANAGEMENT FROM ANY PLACE!

CONSTRUCTION OF THE SYSTEM



SERVER SOFTWARE



on server-type computer



on industrial computer incorporated in DMO-700 series manipulator



on a PC



on industrial computer mounted in the RPD radio access unit

DISPATCHER SOFTWARE

enables triggering one or more types of alert units simultaneously and cooperation with diverse monitoring devices, for example contamination, pollution extent or water level.

The incorporated database may be fully editable by the system administrator and it contains detailed information on all the sirens. The digital map pictures geographical location and condition of all the alert units.



COMMUNICATION

The dispatcher's unit, as a standard, communicates with the sirens via IP network and digital radio connections providing high security level of transmission and unauthorised access to the system. The application

RADIO ACCESS UNIT (RPD) is responsible for starting up the sirens in various warning systems. In the **digitexCZK/IP®** it plays the interface role connecting the sirens operating in radio technology (analogue or digital) with the system operating in the IP network. RPD enables transmission and receipt of package transmission by means of analogue or digital radio. The Radio Access Unit is offered in a rack-type housing or a box mountable on the wall.

distinguishes two communication paths then and provides the user with options to select the path they want to transmit their command to the alert units.

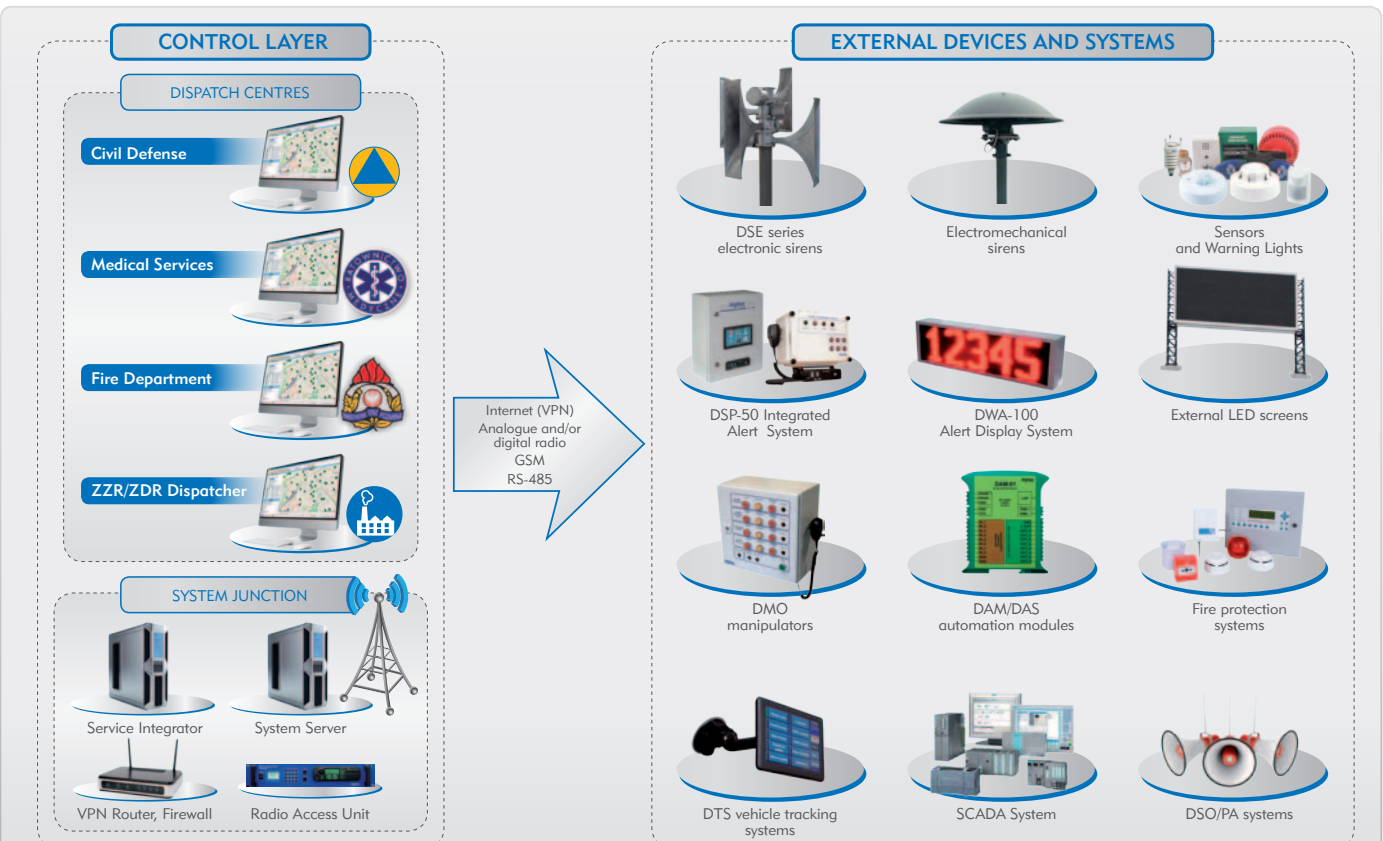


SYSTEM INTEGRATION

digitexCZK/IP® offers various alert and warning methods on the industrial premises and outside of them it provides integration with other security systems, e.g. fire

protection systems, hazardous substance monitoring, sound warning systems, SCADA systems, dynamic message boards, GIS spatial information systems and other.

Open digital telecommunication and IT platform for the security systems purposes



ATTENTION! Transmission channel protection prevents unauthorised access to the system – the encryption algorithm of minimum AES-128 and, for IP transmission, remote key exchange through asymmetric encryption made by the RSA algorithm (with a pair of keys: public and private) was applied.



SYSTEM IMPLEMENTATION STAGES



- ✓ Client's needs **analysis** concerning the hazardous zones and system management method.
- ✓ **Sound analysis** of the working environment providing appropriate sound intensity of the sirens.
- ✓ Installation of **digitexCZK/IP®** software.
- ✓ **IP network** configuration (VPN).
- ✓ **Granting** software licences.
- ✓ **Carrying out** tests of the system.
- ✓ System users' **training**.
- ✓ **Granting a 24-month** warranty unless otherwise provided in the contract.
- ✓ **Covering** the system by remote manufacturer's supervision.

EXAMPLES OF SYSTEM IMPLEMENTATIONS IN THE INDUSTRIAL SECTOR

1. **PKN Orlen S.A. w Płocku**
Multi-access alert and warning system using fibre optic transmission and digital radio communication, based on more than 40 DSE electronic sirens covering the area of more than 1000 hectares.
2. **PERN „Przyjaźń” S.A.**
Sirens controlled through IP communication, including local manipulators customised for the user.
3. **INTERNATIONAL PAPER KWIDZYN Sp. z o.o.**
Premises digital alert system based on digital sirens and control from an IT platform.
4. **ANWIL S.A.**
System of sirens integrated with the automation control system existing in the premises.
5. **PAROC POLSKA Sp. z o.o.**
Warning system based on DSE digital sirens and IP wireless communication.
6. **WAVIN POLSKA S.A.**
System of 4 sirens controlled and monitored through the IT platform and external system existing in the premises.
7. **KGHM POLSKA MIEDŹ S.A.**
Warning system based on DSE sirens controlled by TETRA standard radio.
8. **ABB Sp. z o.o.**
Siren system integrated with the automation control existing in the premises.
9. **BASELL ORLEN POLYOLEFINS Sp. z o.o.**
Alert system based on DSE digital sirens and integrated with the local PA system.
10. **Volkswagen Poznań Sp. z o.o.**
System of sirens covering whole facility area.
11. **Procter & Gamble Operations Sp. z o.o.**
Digital alert system based on digital sirens.



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