



## **funkwerk DSS: Practice-oriented security.**

**DECT™ Security System:  
The DECT™-based radio emergency call system  
with integrated telephony and exact localisation**

# Security. Everywhere.

Funkwerk Enterprise Communications GmbH with its head office in Nuremberg is a leading manufacturer in Europe of professional network access and ITC solutions for companies, authorities, organisations and carriers.

The scope of services comprises the following technologies: Wireless LAN, IP-based routing, UTM, VPN, Voice over IP, Voice over VPN (VoVPN™) as well as highly integrated telecommunication systems. Moreover, we also offer mobile security and communication systems based on GSM and DECT™ technologies.

As one of the major producers of DECT™ units and personal emergency signal systems for professional and industrial uses, we manufacture around 250,000 mobile units per year in our Salzgitter factory.

High investment safety and lasting operational readiness are guaranteed by our spare parts supply over many years and repair throughput times of mostly less than 24 hours.



DSS personal emergency signalling unit funkwerk  
FC1 S Ex—with BG certification



## funkwerk DSS

### DECT™ Security System—the powerful, flexible and modular security and communication platform

With its funkwerk DSS system, Funkwerk Enterprise Communications offers a platform that complies with relevant standards and is expandable for integrating in-house communication with an optimized and situation-oriented security system for

- ▶ Industrial plants and production environments of all types Art
- ▶ Works security and security of the premises
- ▶ Prisons
- ▶ Hospitals, nursing homes, psychiatric clinics
- ▶ Public utilities, water works and sewage works

With more than 40 years of experience in the development of systems for in-house private communication networks, the funkwerk solutions provide a unique background enabling optimum use of modern radio technologies.

The funkwerk DSS DECT™ Security System provides you with an optimized system for the most varied practical situations, comprising an operator console and mobile units.

Whether you are a company or a service provider in any industrial sector, whether industrial or safety-relevant environments, small- or large-scale systems are involved: The funkwerk DSS DECT™ Security System is a flexible and ergonomic radio communication platform that is safe to operate and adapts to its tasks, enabling growth in line with your requirements.

## funkwerk DSS: The system for optimum security.

The funkwerk DSS DECT™ Security System is based on a modern, multi-cellular DECT™ radio network. The integrated multi-channel capability of the system ensures permanent availability of all security functions, even at high communication traffic.

A wide choice of situation-optimized system components enables setting up a reliable radio coverage in any real environment, considering also special factors, e.g. for

- ▶ Explosion-hazardous areas
- ▶ Extensive outdoor areas
- ▶ Automatic and machinery contacts
- ▶ Halls, tunnels, basements and machinery rooms
- ▶ Positioning with room accuracy.

Comprehensive, central and server-based alarm management provides optimum overall view of the message sequences, the position of the persons needing help and control of rescue operations in addition to automatic and exact logging of all processes and signals.

Upon request, alarm monitoring can be shown on real building plans and can include video support.

In addition, the funkwerk DSS system can be smoothly integrated into the webnet-gms® building management system which covers and unites all categories of technical building management.

Prisons



Industrial and works security

## funkwerk FC1 series

### Personal emergency signal unit and telephone in one single unit: Your perfectly secure mobile companion.

The DSS handsets of the funkwerk FC1 series offer not only telephony integration with ISDN comfort features, but also meet the highest ergonomic standards for optimum work productivity while at the same time ensuring personal security of your employees by means of sophisticated sensors and system components suited for any environment and situation.

The permanent availability of communication paths while being able to move around in-house without any restrictions increases your flexibility and increases efficiency of running operations.



### Manifold communication options

Easy and comfortable voice communication with other mobile units, with units connected to a private branch exchange or with the public telephone network is provided at any time within the entire DSS network, including all ISDN comfort features.

Comprehensive messaging functions and a large illuminated display enable receiving alarm and text messages from other users and manually or automatically generated messages from computer systems.

Some text messages can be comfortably pre-programmed and easily triggered. All outgoing messages are logged along with a time stamp.

#### Nursing homes and secure psychiatric clinics



#### Explosion-hazardous industrial areas

## funkwerk DSS: Security. Everywhere.

### Alarm identification and signalling, transfer and help

The funkwerk DSS system offers optimum safeguarding by means of environment- and situation-specific components and sensors for manual and automatic alarm triggering, depending on the configuration and the application scenario.

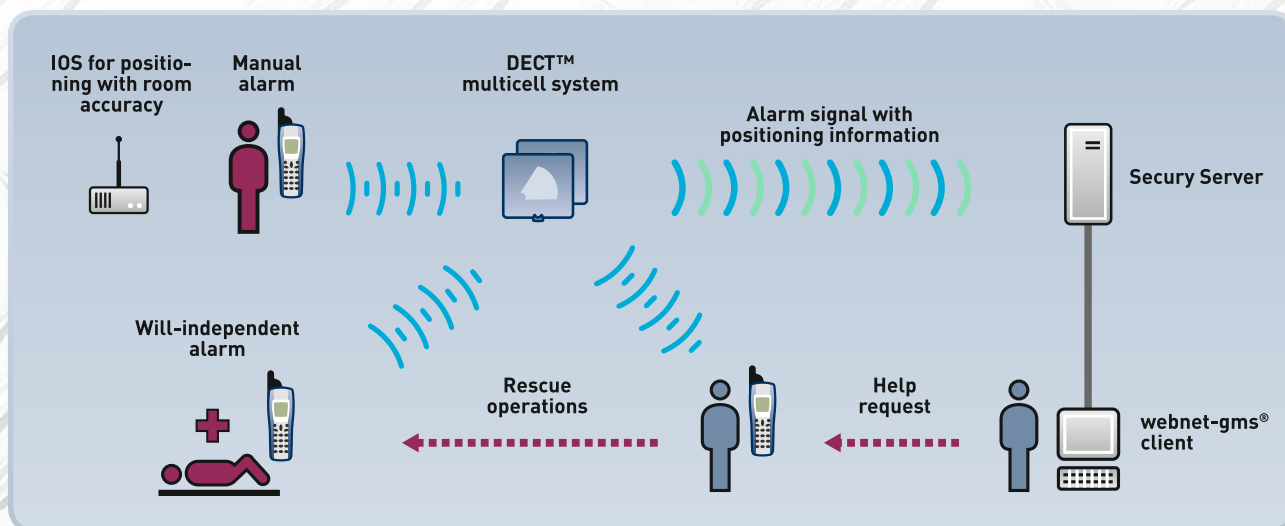
Listening-in or voice connections with the employees concerned by the alarm can be set up and remote controlled from the operator console. Moreover, the push-button set allows setting up a voice connection with other Security and telephone users at any time.

DECT™ base stations ensure optimum radio coverage by guaranteeing mobile voice and message communication between the operator console staff, the rescue team and the person needing help at any time. The base stations also enable localisation of the person needing help with area accuracy. Additional inductive beacon transmitters can be used for achieving positioning with room or floor accuracy.

The scope of functions of the funkwerk FC1 series handsets meets every emergency situation:

- ▶ Will-dependent alarms by pushing the emergency button
- ▶ Will-independent alarms such as tilt, no-motion and time alarms
- ▶ Attack signalling if handset is stolen by means of loss alarm
- ▶ Localisation of alarm messages with area or room accuracy
- ▶ Immediate alarm transmission to the operator console
- ▶ Transfer of alarm to other mobile units (employees nearby)
- ▶ Immediate help and help monitoring

Each alarm message is transmitted to the central server and/or the operator console along with the positioning information and can also be shown on a realistic building plan, depending on the software configuration. This positioning information results from the installed DECT™ base stations and can be supplemented and improved by inductive beacon transmitters enabling precise localisation. This allows a rescue team to be directed to the right place without delay.



## The operator console workstation with webnet-gms® client software

The webnet-gms® client is required for displaying the operational procedures of a DECT™ Security system on a screen and controlling them in a comfortable manner. This software can be installed on a system-compatible PC connected via a network.

The webnet-gms® client provides

- ▶ Precise representation of the alarm situation
- ▶ Display of the alarm course on site plans with a positioning history
- ▶ Processing of alarm message incl. logging
- ▶ Control and coordination of rescue operations
- ▶ Remote control of Security handsets giving the alarm for setting up a voice communication
- ▶ Muting/loudspeaker mode of emergency call units for unnoticed monitoring of situation when hostages are taken
- ▶ Video image of alarm situation\*



## DECT™ Security Server

The system core, i.e. the Security server, is closely interleaved with the LAN-based multiuser-compatible webnet-gms® operator console system and can be optimized for any specific application by means of a software adaptation. This enables displaying even complex alarm situations in large systems very clearly. To achieve safe alarm processing, the operator at the operator console is guided step-by-step by the system. As an option, video systems and a special warden round control system software package can be integrated.

The DECT™ Security server is a PC server designed for continuous operation and equipped with the Security application software. Here all alarms are evaluated and transmitted to the webnet-gms® client.

At the same time, automatic transfer of complete emergency signal messages to Security handsets, to pagers, as an E-mail, as SMS or as a contact triggering is provided for controlling external alarm message devices.

The DECT™ Security server also serves for

- ▶ Automatic function check of all handsets logged in
- ▶ Monitoring of emergency call processing
- ▶ Execution of webnet-gms® messaging, contact message and relay control.

Further information on the scope of functions of the webnet-gms® building management system and the integration into existing technical building management systems is available in a separate product brochure—just contact your Funkwerk partner, he will be glad to help you!

\*) Optional system extension

## funkwerk DSS system functions:

- ▶ Operation as an independent system or as part of a hazard management system in connection with other in-house alarm systems
- ▶ Operator console with several webnet-gms® client workstations is possible
- ▶ Processing of alarms at the operator console with display of site plan and control of telephony and messaging functions as well as contact triggering
- ▶ Permanently updated alarm display on the site plans with room or area accuracy
- ▶ Change from site plan display to video images from monitoring cameras (option) by the push of a button
- ▶ Remote-controlled addressing and monitoring function (without intervention of the person triggering the alarm) for evaluation of the situation with minimum delay
- ▶ Automatic alarm transfer to other mobile units
- ▶ Automatic triggering of contacts, sending of E-mails or alarm transfer in case the hazardous situation escalates
- ▶ Manual triggering of contacts for controlling external messaging devices (sirens, rotating lights, door closing mechanisms etc.)
- ▶ Monitoring of rescue operations
- ▶ Self-monitoring of system functions
- ▶ Automatic login and logout procedure of funkwerk FC1 S handsets into/from the security cycle including safety check of alarm sensors
- ▶ Voice communication of mobile units among each other and with private branch exchange units as well as with the public telephone network with all ISDN features
- ▶ High user capacity and expansion levels with handover all over the network
- ▶ BG certification





## DSS handsets of the funkwerk FC1 series:

**Always secure, always mobile, always available.**

Handy and sturdy, lightweight and ergonomically optimized: the mobile units of the funkwerk FC1 series combine high-class and reliable personal emergency signalling functions, automatic positioning and complete telephony functions with all modern ISDN features and comprehensive messaging functions for transmitting text messages.

### Will-dependent alarm

- ▶ Push-button alarm (pushing the alarm button on the handset)

### Will-independent alarms

- ▶ Tilt alarm: Automatic triggering by the tilt sensor
- ▶ No-motion alarm: Automatic triggering when no motion is detected
- ▶ Time alarm: Automatic triggering after a pre-set period due to absence of a button being pressed
- ▶ Loss alarm: Automatic triggering by tearing off the Security handset

### Automatic technical alarms

- ▶ Technical alarms when cyclic monitoring fails or when battery is empty

### Text messages of all types

A large alphanumeric display provides well-legible alarm and text messages even in bad viewing conditions. Fault messages automatically generated by machinery and manually generated messages from LAN-based messaging clients can also be transmitted and displayed. Some text messages can be comfortably pre-programmed and triggered easily.



*funkwerk FC1*



*funkwerk FC1 Ex*



*funkwerk FC1 S*



*funkwerk FC1 S Ex*

## Optional software module:

# Warden round guidance and control system

The warden round software module enables a completely novel organisation of warden service operations. The comprehensive control and logging functions provided by the funkwerk DSS system are completed here by active and automatic guidance of the wardens.

“Man is creature of habit”—in the past, this simple truth has made more than one warden system vulnerable: Especially recurring procedures can be spied out and used for criminal purposes. The warden round software module helps in breaking just those habits.

- ▶ Saved warden rounds can be selected and defined either manually or by chance; the system enables directing and monitoring several warden rounds at the same time
- ▶ Warden rounds can be modified comfortably to suit current needs, e.g. leaving out certain places or a change of order
- ▶ Interruption or cancellation of warden rounds
- ▶ When passing by a checkpoint, the warden is shown the next point to go and the time allowed to go there on the display of his handset
- ▶ Required measures are automatically set and displayed at the right place and at the right time
- ▶ Passing by a checkpoint is automatically reported to the operator console, monitored and logged along with place and time
- ▶ Alarms are displayed on the warden control workstation monitor and on the webnet-gms® client
- ▶ Decentralised time clocks and round cards are not needed anymore



## User report

# Funkwerk DSS in the Hanau disciplinary prison

In the forensic psychiatric clinic in Hanau, a DECT™-based personal emergency signal system safeguards the employees during their daily work. This specialized hospital treats mentally ill and addict law-breakers. The patients are accommodated in solitary cells exclusively.

Technical security of the employees in the clinic is provided by a funkwerk DSS DECT™-based personal emergency signal system and an integrated video monitoring system. All 25 employees are equipped with a funkwerk FC1 S handset and can use it for triggering an alarm immediately in case of an emergency.

The system was adapted to local conditions with 35 beacon transmitters and 15 radio base stations, thus guaranteeing radio coverage at any point, any time. In case of an alarm, the operator console and all employees on duty receive information about who needs help and where help is needed via a positioning system.

In 2003, the Hanau clinic decided in favour of a new personal emergency signal system that was to include an integrated telephone function. Nursing director Mr. Gunold had several decisive factors: “A similar Funkwerk system installed in another location was known to me before. I have pleasant memories of the good support by the producer, both during the installation phase and above all afterwards during the operation phase, and of the training courses offered. In addition, the precise positioning function and the extreme reliability of the units were decisive.”



The employees, on the other hand, attach great importance to easy handling and sturdy mobile units.

The combination of the personal emergency signal system with video monitoring and the fire alarm console demonstrates the good cooperation with the manufacturer. An alarm triggered by an emergency signal unit is transmitted to all handsets and to a monitor at the gate. At the same time, the video camera located closest to the handset that has triggered the alarm is activated. Thus the system controls video monitoring and in case of emergency ensures the use of the right cameras.

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