



## **DECT Security System funkwerk DSS: Professional security and communication.**

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

# Security. Everywhere.

With more than 40 years' experience, we are specialists in the field of personal emergency signal systems and have extensive know-how regarding the development and production of terminals that are explosion-proof and which satisfy the directives of trade and professional associations.

The success of Funkwerk solutions is based on matching our systems precisely to the individual demands of various fields and scenarios, long-term spare parts supply and intensive and uninterrupted after-sales service provided by a closely-knit network of field representatives and service personnel.

## New standards for your security and information.

*Professional communication solutions with integrated personal alarm signal and messaging functionality—efficient, flexible and modular.*

The DECT Security System funkwerk DSS is a modern communications platform with integrated and situations-orientated security systems—conforming to standards, certified and highly modular. The flexibility of the system allows it to be adapted to suit the demands of the real world and it can grow as you require. It can be integrated seamlessly with existing communication, security and IT infrastructure—including, of course, the TETRA Security System funkwerk TSS.

The DECT Security System funkwerk DSS offers an optimised system consisting of a control centre and mobile Personal Emergency Signal handsets that are suitable for use in various real-life situations. Professional mobile communication with a high standard of security is combined with telephony functions in a single system.

Typical applications include:

- ▶ Industrial plants and production environments
- ▶ Plant and property security
- ▶ Correctional facilities
- ▶ Hospitals, nursing homes and psychiatric clinics
- ▶ Energy supply companies, water and sewage works
- ▶ Local authorities

With more than 40 years' experience in the development of professional communications systems, Funkwerk Security Communications has a unique background in the optimal design and manufacture of modern radio technologies.



## Personal security with funkwerk DSS: Protecting life and limb.

### Alarm recognition, signalling, transmission and assistance

The DECT Security System funkwerk DSS offers optimal personal security by means of specific functions as well as sensors integrated in the handsets for manual and automatic alarm triggering.

A comprehensive DECT communication system is supplemented by inductive localisation beacons as well as the funkwerk Security application to create the funkwerk DSS system—allowing room and floor-specific localisation of a person seeking help.

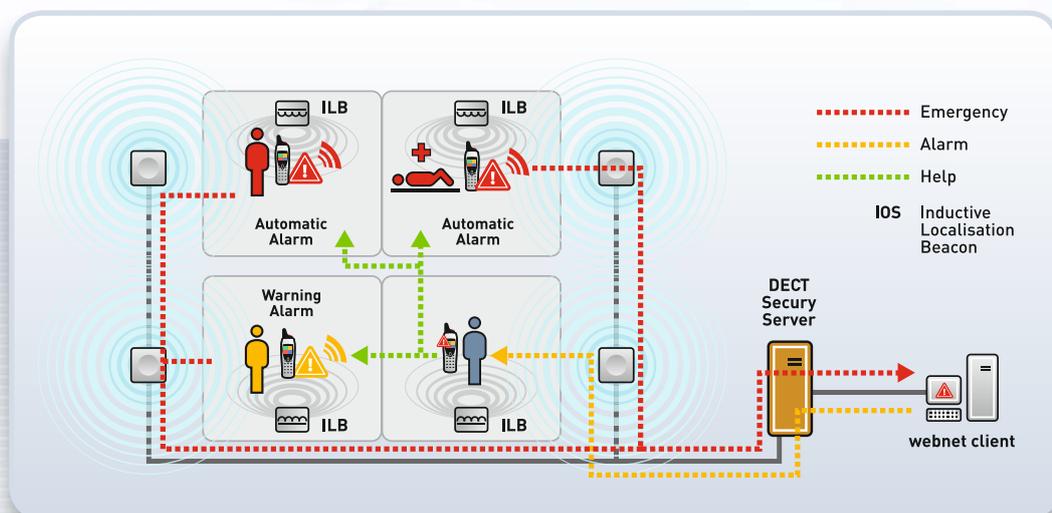
Eavesdropping and speech links with personnel affected by the alarm can be established from the control point. In addition, speech links can be established with other Security and telephone users at any time.

The inherent flexibility of the system allows it to be adapted to a client's special requirements.

Integrated special functions enable the funkwerk FC4 S series handsets to deal with any emergency:

- ▶ integrated sensors for localisation and alarms
- ▶ automatic alarm modes—such as position, no-movement and time-dependent alarms
- ▶ automatic loss alarm (by means of a tear-away switch)
- ▶ manual alarms via separate, easily accessible emergency and warning keys
- ▶ area and room-specific localisation in the event of an alarm being triggered
- ▶ Immediate reporting of an alarm to the control point
- ▶ transmission of alarms to other mobile devices (e.g. personnel in the area)

Every alarm report, together with localisation data is sent to the central server and the control point respectively, and can be superimposed on a plan of the building. In this way, assistance can be given without delay and monitoring of activities can be guaranteed. The entire event is comprehensively documented for subsequent evaluation.



## *Greatest flexibility for optimal security.*

The technical basis of the DECT security system funkwerk DSS is a modern, multi-cellular DECT network, flexibly combining speech and data communication (e.g. messaging).

Wireless coverage can be adapted to suit various situations, thanks to optimal scalability and a wide range of system components and antennas. In this way, reliable wireless service is also available in challenging environments, such as:

- ▶ innermost areas of buildings
- ▶ complex industrial plants
- ▶ halls and tunnels
- ▶ basements and engine rooms
- ▶ areas in which there is an explosion risk
- ▶ large, open areas

In addition to communicating speech, text and alarm signals, the system can be expanded to offer further performance features and Security functionalities, for example:

- ▶ room and floor-specific localisation
- ▶ integration of the TETRA Security System funkwerk TSS
- ▶ integration of PABXs and gateways to other communication systems
- ▶ linking with video systems
- ▶ coupling with machine and switch contacts for manual or automatic triggering of alarm or status reports

The funkwerk Security DSS application enables comprehensive, central alarm management on a client-server basis. In addition to automatic, precise logging of all events and signals, the funkwerk DSS offers at all times an optimal overview of reporting sequences, room and floor-specific localisation of personnel and the direction of assistance.

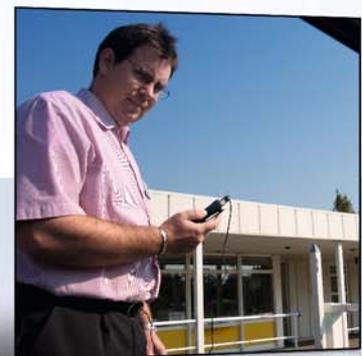
On request, alarm monitoring can be displayed as an overlay on building plans—with video support.



## Overview of the funkwerk DSS system

### System functions

- ▶ Operates as a stand-alone system or as part of a hazard management system
- ▶ Enables linking with other existing alarm systems by means of standard interfaces
- ▶ Alarm control point with one or more workstations (webnet client)
- ▶ Alarm management at the control point with layout display and control of telephony and messaging functions
- ▶ Constantly up-dated, room, area and floor-specific alarm indications on the layout displays
- ▶ Video feed from CCTV cameras at the touch of a button
- ▶ Remote controlled contact and eavesdropping function for the fastest possible evaluation of a dangerous situation, without any input required by the person triggering the alarm
- ▶ Automatic and immediate forwarding of an alarm to other handsets to enable rapid response and assistance
- ▶ Automatic switching of relays and switching devices
- ▶ E-mail and alarm forwarding in the event of a dangerous situation escalating
- ▶ External devices (such as sirens, floodlights, door locks, etc.) can be controlled from the control point by means of manual switching
- ▶ Monitoring of assistance, logging and documentation
- ▶ Self-monitoring of system functions
- ▶ Automatic log-on and log-off of funkwerk FC4 S handsets in the personal security system, including the testing of alarm system functionality in the handset
- ▶ Handsets offer speech communication with each other, as well as communication with a PABX and the public telephone network
- ▶ High user capacity and expansion capabilities with network-wide handover
- ▶ Complying with BGR139 regulations of the German employers' liability insurance association and DIN V VDE V 0825-1



# DECT Secury Server and control point software webnet classic / webnet2

## DECT Secury Server

The DECT Secury Server is the centre point of the system: A professional PC server, designed for round-the-clock operation using the Secury user-software and integrated with the LAN-based webnet management system.

All alarms are evaluated by the Secury Server and forwarded to the webnet client. Simultaneously, the complete alarm report is automatically forwarded to DECT handsets in the system, as well as to pagers and as an e-mail or sms. The Secury Server can also transmit a command to external alarm systems—such as fire alarms or sirens. As an option, video systems or the special “Warden’s Round Control and Logging System” software package can be incorporated.

If desired, the Secury-Software can be optimised for the requirements of the specific application by means of software modifications, so that complex alarm situations occurring within large systems can always be indicated clearly and simply.

Additional features of the Secury Server include

- ▶ Multi-user capability by means of the client/server concept
- ▶ Automatic functional control of all logged-in handsets
- ▶ Monitoring of emergency dispatching
- ▶ Execution of webnet messaging
- ▶ Contact reporting and relay control

## Control point software webnet classic / webnet2

The webnet control centre software enables highly efficient alarm management with intuitive user-prompting. To ensure correct alarm response, the system guides the operator in the control centre step-by-step. Even the standard version—known as webnet classic—enables the ergonomic handling of alarms.

With the optional webnet2 upgrade version, the user receives—in addition to expanded capabilities—standardised interfaces with superordinated management systems.

## The funkwerk DSS and TSS combination

The system architecture of the funkwerk TSS and funkwerk DSS Security systems allows them to be combined—while using a common alerting platform.

In this way, an existing funkwerk TSS TETRA Security system can be added seamlessly to a DECT system—and vice versa. This also makes the conception and implementation of combined TSS-DSS-Security systems possible. You can thus enjoy the combined benefits of TETRA and DECT communication in a single system—while retaining full Security functionalities.



## Ergonomic, light and robust: The funkwerk FC4 handset series

*Personal/industrial mobile device and telephone combined in a single unit: your perfect mobile solution for maximum security.*

With the FC4-series of DECT handsets Funkwerk has once again set the benchmark for functionality, as well as ease of use and convenience.

Optimal ergonomics, comprehensive protection against external influences and extensive DECT performance features are the key differentiators of the funkwerk FC4-series handsets. In addition, the funkwerk FC4 S and FC4 S Ex Security handset versions offer high performance sensors for localisation as well as manual and automatic alarm triggering.

The handsets ensure the safety of solitary workers in hazardous work environments — and even comply with the stringent BGR139 directives of the German employers' liability insurance association.

The sturdy, dust-proof casing is water-jet proof and offers IP 65 class protection: making the FC4 a robust and reliable work mate in harsh industrial environments. Settings are stored on a removable MemCard (SIM Card) – allowing for the easy swapping of handsets that need to be serviced. The funkwerk FC4 handsets are equipped with features ensuring convenience in use, such as a speakerphone, MIDI ring-tones, vibration signalling and an easy to use symbol-based interface.

Dust-proof and intrinsically safe mobile terminals, certified in accordance with the European ATEX directives, are available for use in industrial environments with a risk of explosion.

### Multiple communication possibilities

Within the overall DSS network, speech communication is enabled with other handsets, with PABX equipment or with the public telephone network, while retaining the full convenience of all ISDN features.

Increased efficiency in day-to-day operations is achieved thanks to the high availability of communication channels and unrestricted in-house freedom of movement, which ensure system flexibility and general acceptance by the staff.

### Messaging

A large alpha-numeric display shows alarm and text messages that are easily legible, even under conditions of poor visibility. Comprehensive messaging functions allow alarm and text messages to be received from other users. Even during a conversation, automatically-generated fault reports, messages from computer systems as well as manually-generated text from LAN-based messaging-clients can still be received.

It is easy to preprogram and send text messages—and all outgoing messages are logged.



# funkwerk FC4: Alarm functions

Over and above the standard features the FC4 S offers high performance, integrated sensors and localisation functionality with cyclic testing. Various manual (emergency and warning alarm) and automatic alarms (position, loss, no-movement and time-out alarms) are available, complying with the standards of the German employers' liability insurance association.

## Manual alarms

- ▶ Push-button alarm (1 + 2), triggered by easily accessible top-mounted alarm key
- ▶ Warning alarm (1 + 2), triggered by side-mounted key

## Automatic alarms

- ▶ Position alarm: triggered automatically by the position sensor of the handset
- ▶ No-movement alarm: triggered automatically in the event of the handset detecting no movement within a preset period
- ▶ Time-out alarm: triggered automatically if a key is not depressed within a preset period of time
- ▶ Loss alarm: triggered automatically if the Security handset is wrested from the user

### Manual alarm types:



### Automatic alarm types:



## Automatic technical alarms

- ▶ Technical alarms are triggered if a loss of cyclic monitoring is detected or if the battery is exhausted
- ▶ Constant monitoring of wireless connectivity with the control point and the DECT Security Server



**funkwerk FC4**  
DECT handset with telephony and messaging functions



**funkwerk FC4 Ex**  
DECT handset with certified explosion protection



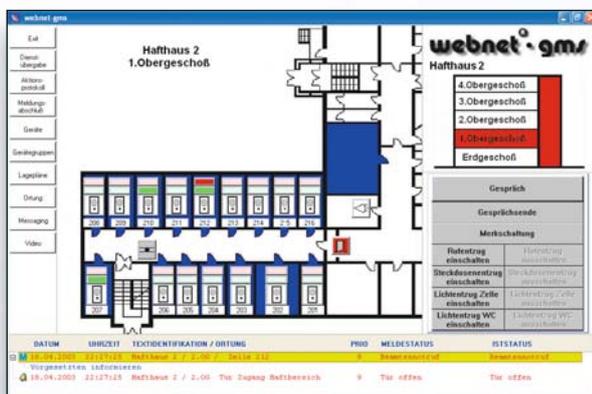
**funkwerk FC4 S**  
DECT handset with personal security and messaging functions



**funkwerk FC4 S**  
DECT handset with explosion protection, personal security and messaging functions

## Localisation and Alarms

The funkwerk DSS system enables a person in distress to be precisely localised by means of inductive localisation beacons (ILBs). The exact locality of the alarm can thus be indicated to the client workstations on the network by means of a layout display.



- ▶ Precise localisation of the person in distress
- ▶ Area and floor-specific indication of the locality by means of layout displays and floor plans
- ▶ Networked client workstations
- ▶ Automatic alarm forwarding to other mobile sets
- ▶ Silent alarm and hostage function
- ▶ Tracking of alarm locality
- ▶ Eavesdropping in the event of an emergency
- ▶ Supports all DECT features for efficient communication

### External supplementary alarms

- ▶ switched by means of floating contacts or programmable interfaces
- ▶ Switching of a fire alarm
- ▶ Switching of process control systems
- ▶ Switching of video systems

## Inductive Localisation Beacon (ILB)

The Inductive Localisation Beacon or ILB is a beacon functioning by means of induction, which transmits the exact location to appropriately equipped handsets (FC4 S, FC4 S Ex).

- ▶ Low frequency, low-reflectance and attenuation-free localisation technique using a purely magnetic coupling of transmitter and receiver coils (induction)
- ▶ Localisation range precisely adjustable from 0,7 to 6 m
- ▶ The range can be programmed without opening the casing—even after installation
- ▶ Direction of movement can be determined by connecting separate antennas
- ▶ Demarcation of larger localisation areas by adding external loop antennas installed in the ground

- ▶ Function monitoring with alarm by means of an additional module
- ▶ Tamper-proof installation with a tamper-alarm available
- ▶ Suitable for use in outdoor and flush-mounted fittings (protection class IP 65)
- ▶ ATEX versions available for use in areas with a risk of explosion (Version IOS451 Ex)



## Warden's Round control and logging system

The “Warden's Round control and logging system” completes the comprehensive logging and programming functions of the funkwerk DSS system to enable the active and automatic management of guards—making it possible to organise the operating processes within the security guard service in an entirely new way.

“People are creatures of habit”—this piece of wisdom has already been the weak point of so many security guard systems: a routine process can be spied upon and thus be used to aid criminal activities. The Warden's Round software module assists with the implementation of randomly scheduled rounds, precisely to prevent habits from forming.

Rounds can be changed conveniently to suit the actual requirements (such as bypassing certain areas, changing the sequence, interruption or termination of rounds, etc.). Decentralised time clocks and cards become completely unnecessary.

- ▶ Scheduled rounds can be swapped around manually or randomly
- ▶ Simultaneous control and monitoring of multiple rounds
- ▶ When a guard passes a check point, an automatic notification of the next waypoint, together with a time indication, is displayed on his handset
- ▶ Automatic instructions and notification of the required actions are displayed on the guard's handset at the correct place and time
- ▶ When a check point is passed, the time and location is automatically transmitted to the control point
- ▶ Simultaneous alarm indications on the control room monitor and the webnet client
- ▶ Monitoring and logging of all localisation and alarms



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