

**DECT™**

**funktel**

# DECT handsets from funktel

**funktel FC4 series**  
**funktel FC11 / D11**



DECT  
SECURITY  
SYSTEM **DSS**

# DECT handsets from funktel

## More than 50 years of experience in security



### **Innovative technology, high quality, reliability, and cost efficiency**

■ The new DECT terminal units of the funktel FC4 range are the result of decades of experience and the technical expertise of funktel, as well as the latest developments in the fields of ergonomics, energy management and user prompting. The funktel FC4 series comprises compact and highly robust mobile units for wireless telephony, messaging, as well as offering the possibility of integration into a personal emergency signalling system.

For use in potentially explosive industrial environments such as the oil industry or petrochemicals, explosion-protected versions have been developed and are certified in accordance with the latest European ATEX directives.

During the development of these units attention was focused on the requirements of users who work alone and requiring a high level of personal security (in accordance with the DGUV 112-139 regulations of the German Employers' Liability Insurance Association)—for example, workers in the oil and petrochemical industry, prisons and psychiatric facilities.

A further benefit can be found in the short return of investment period due to savings made in both time and costs thanks to the reduction in reaction times and decision processes. The durability of the products and the range of useful accessories available ensure a high degree of investment security.



# funktel FC4 and funktel FC11 / D11

## The universal handset range

### Models for special applications

The funktel FC4 Medical was specially developed for the requirements of the clinical and care sector: Robust, easy-to-handle, moisture-protected and with antimicrobially coated housing. → page 6

### Ex-protection—even with headset

The new Ex-HS models of the funktel FC4 series enable safe use in industrial environments with explosive dusts and gases thanks to specially designed and sealed housings and electronic protective measures—certified according to the strictest specifications and at high volume even with headphones or headsets. → pages 7 and 9



funktel FC4 S Ex HS

### Precise localisation functions

Every funktel handset in the local network can be located exactly and tracked in real time in the control centre—essential for evacuations, helpful in alarm situations and with the option to automate the control of watch rounds.

### Personal emergency signal functions

As high-quality personal emergency signalling devices the FC4 S and FC4 S Ex (S = Security) models are fitted with sensors for automatic alarms, special keys for manual alarms as well as functions for both area-specific and room-specific localisation.

### Accessories

Meet the demands of your specific application by rounding off your DECT handsets with high-quality OEM accessories—whether chargers or replacement batteries, headsets or installation software. → pages 10–11



funktel FC11

■ The funktel FC4 and funktel FC11/D11 series from funktel offer a comprehensive range of DECT terminal devices in which particular emphasis was placed on the telephony activities being comprehensibly displayed, as well as on the ability to react quickly: Incoming calls and entries in the lists of calls, redials and conversations are automatically linked to name entries and displayed in plain text, while icons signal missed calls and messages. Important functions such as callback, phone book access or the redial list can be accessed with a single push of a button (shortcut).

The high-resolution, illuminated colour display, the newly designed symbol-based user interface and the illuminated keyboard with coloured menu keys make the operation of the handsets extremely simple and enjoyable. Modern rechargeable battery technology with sophisticated power management and a variety of configuration options for operation and signalling make the funktel DECT handsets extremely ergonomic—for additional safety through optimum operation and information.

# funktel D11

## Office handset

■ The ergonomic and user-friendly DECT office handset funkotel D11 combines professional voice and messaging functions with intuitive menu navigation. With its clear structure and symbology of menu control, the funkotel D11 is an easy-to-use handset for a wide range of office environments.

Thanks to a robust housing, the funkotel D11 is durable and hard-working. The bright 2-inch colour display, the illuminated, abrasion-resistant keys and the ergonomic control pad ensure optimum operability even in unfavourable lighting conditions.

The funkotel D11 has an LED indicator, which indicates missed events to the user. With freely programmable keys, the handset can be configured to meet individual needs – individual telephony functions such as quick-dial or door opening can be carried out at the touch of a button.

funktel D11 set, black ..... 5.010.761.000



### Features

- Bright 2-inch colour display
- Over 200 hours stand-by time
- Innovative user prompting with intuitive menu structure
- LED signal and counter for unread events
- Ergonomic navigation rocker
- Freely programmable softkeys
- Illuminated, abrasion-resistant keypad
- Rechargeable Li-Ion battery
- Covered headphone socket
- Easy replacement function

### Technical Data

Radio standard:	DECT™ (Digital Enhanced Cordless Telecommunications)
Frequency range:	1.88 ... 1.9 GHz
Transmission power:	average: 10 mW, peak: 250 mW
Dimensions:	141 x 46 x 20 mm (incl. clip 141 x 46 x 31 mm)
Mass:	appr. 121 g (incl. battery and clip)
Ring tone volume:	max. 96 dB (A) at 30 cm distance*
Handset operating life**:	talk-time: up to 20 hours, stand-by: up to 200 hours
Charging time:	appr. 7 hours with discharged battery
Battery type:	Lithium-Ion, 1,000 mAh
Operating temperature:	handset: -10 ... +55 °C, charging: +5 ... +40 °C
Storage temperature:	-25 ... +55 °C (short-term storage, max. 1 month) 0 ... +25 °C (max. 12 months)

\*) depending to ringtone

\*\*\*) with full battery, depending to display brightness settings



### Innovative menu prompting

The menu has been developed from scratch and the logical menu structure enables intuitive operation of numerous convenience features.



### MEM card

The funkotel D11 can copy network information and contact list data of older-generation devices automatically from the MEM card.

# funktel FC11

## DECT Industrial handset

■ The funktel FC11 offers users the perfect industrial handset for harsh everyday conditions: handy, convenient, robust and durable—even in an industrial environment. No matter whether professional voice and messaging functions, sophisticated ergonomics or innovative user prompting are required: the funktel FC11 delivers a convincing solution across the board.

The sturdy industrial housing of the funktel FC11 sits in the hand perfectly and withstands high loadings or falls from a great height (tested up to 1.8 m) without any problem. Thanks to the guaranteed IP 65 protection class, the funktel FC11 is dust-and waterproof and suitable for use outdoors and in harsh industrial environments. The sturdy belt clip ensures secure support and great carrying comfort. The bright 2-inch screen impresses with its crystal-clear display, even under unfavourable lighting conditions. This is achieved by new user prompting with clear icons and an innovative menu structure for self-evidently easier, intuitive operation. The strong vibrator for hazard alarms and a discrete emergency call button guarantee the highest level of protection in everyday use.

The funktel FC11 supports all features for funktel Integral and f.airnet communication systems. Device settings can be imported simply via MEM card directly from the FC1, D3 and FC4 series funktel handsets without manual configuration being required.

funktel FC11 set, grey ..... 5.010.771.000

### Features

- Enhanced fall protection
- Dust and waterproof (IP 65)
- Rechargeable Li-Ion battery, screw-fastened
- Up to 200 hours stand-by
- Abrasion-resistant, illuminated keypad
- Bright 2-inch colour display
- Navigation rocker and programmable softkeys
- LED signal and counter for unread events
- Socket for audio accessories
- Easy replacement function



### Technical Data

Radio standard:	DECT™ (Digital Enhanced Cordless Telecommunications)
Frequency range:	1.88 ... 1.9 GHz
Transmission power:	average: 10 mW, peak: 250 mW
Dimensions:	142 x 46 x 31 mm (incl. clip)
Mass:	appr. 121 g (incl. battery and clip)
Display:	2" TFT, 64 k colours, 176 x 220 pixels
Keypad:	abrasion-resistant hard caps, illuminated in blue, with navigation rocker
Address book:	500 local entries, each with name, 2 numbers and comment, central contact list (system-dependent)
Call lists:	20 entries each for outgoing, incoming and missed calls
MEM card:	SIM card slot (compatible with FC1, D3 and FC4)
Ring tone volume:	max. 98 dB (SPL)*, with vibration
Handset operating life:	talk-time: up to 20 hours**, stand-by: up to 200 hours**
Battery type:	Lithium-Ion, 1,000 mAh
Charging time:	appr. 4 hours (up to 7 hours with discharged battery)
Operating temperature:	handset: -10 ... +55 °C, charging: +5 ... +40 °C
Storage temperature:	-25 ... +55 °C (short-term storage, max. 1 month) 0 ... +25 °C (max. 12 months)
Shipping temperature:	-20 ... +60 °C (with battery)
Protection class:	IP 65 (dust-proof and protected against jetted water)

\*) depending to ringtone

\*\*) with full battery, depending to display brightness settings



# funktel FC4 Medical DECT handset optimised for clinical environments



■ The FC4 Medical DECT handset has been designed specifically for use in clinical environments. In the interest of better hygiene all the casing surfaces are covered with an antimicrobial synthetic film. All external parts are extremely resistant to a wide range of common disinfectants.

Despite its light weight, the FC4 Medical is truly a user friendly handset, thanks to its slim profile, easy-to-read display and an ergonomic keypad. The design of the handset was driven by the requirements of a typical working day in a hospital environment—with particular attention being paid to robustness and impact resistance.

A further advantage of this handset is that the sturdy clip is fastened separately. If the handset should fall or even come into contact with water, the robust components and sealed casing will offer effective protection against damage to the electronics.

The FC4 Medical can be used in all standard DECT systems that comply with the GAP/CAP standards, as well as in all integrated DECT systems.

## Features

- Antimicrobial casing surface, effectively prevents germ growth
- Display shows hospital branding as background image
- Robust casing components protect against damage when dropped
- Jet-proof and dust-tight in accordance with protection class IP 65
- Sturdy clip, separately screw-fastened to the casing
- Modern design with colour display and backlit keys
- Hotkeys for local directory with 500 entries and mute facility
- Call and connection list with date and time as well as redial call list, with a maximum of twenty entries in each case
- 20 MIDI-ring tones and 10 signal tones
- Volume up to 100 dB(A)
- Loudspeaker for hands-free conversation
- Dedicated signals for internal and external calls and messages (ringtones, volume, duration, vibration)
- Interchangeable Li-Ion battery, offering modern battery management and extended stand-by times
- MEM card (SIM card) memory for all settings, directory, calls and message lists—enabling easy handset interchange without data loss

## Technical Data

Dimensions (L x W x H)	appr. 141 x 47 x 20 mm (with clip appr. 141 x 47 x 30 mm)
Mass (with battery)	appr. 106 g (with clip 113 g)
Protection class	IP 65 (dust-proof and protected against jetted water)
Temperature range:	handset: -10 ... +55 °C, charging: +5 ... +40 °C storage (short-term) -25 ... +55 °C
Battery type:	Lithium-Ion replaceable battery, 650 mAh
Charging time	appr. 5 hours
Handset operating life	stand-by: up to 150 hours**, talk-time: up to 17 hours**
Frequency range	1.88 ... 1.9 GHz
Transmission power:	average: 10 mW, peak: 250 mW
Acoustic signalling	up to 100 dB(A)* at 30 cm distance
Loudspeaker:	at the back side
Hands-free speaking:	excellent voice quality
Vibration alarm:	additional or silent signalling
MEM card (SIM card)	128 KB for phone book and call lists as well as all user-data

\*) According to selected ring tone, suitable for use in noisy environments

\*\*\*) With/without blinking (silent mode) display lighting

# funktel FC4 Ex HS

## DECT handset with explosion protection



### Features

- Explosion protection for gas in zones 1 and 2
- Protection class IP 65 (water-jet proof and dust-tight)
- Head-set socket for audio equipment
- Colour display with 65,536 colours, fixed shatter-proof
- Graphical User Interface
- Illuminated keys, abrasion resistant, with coloured menu hotkeys
- 20 MIDI ringtones, high volume up to 92 dB
- Individual signalling for internal, external and messaging alerts: tone, volume, duration, vibration, with temporary muting
- Hot key for local phone book with 500 entries
- User-replaceable, screw-fastened Li-Ion battery with exact status information
- Diversity DECT antenna for optimum connection quality
- Speaker for hands-free operation

■ For companies in the chemical and utility industries, refineries, etc., only specially designed and certified radios may be used in potentially explosive areas. With the new funktel FC4 Ex HS handsets, funktel offers the latest generation of robust industrial handsets with integrated voice and data communication on DECT™ basis and explosion protection.

The funktel FC4 Ex HS is an ATEX-certified DECT industrial handset that can be used in Ex environments of zone 1 and 2 (explosive gases). The certification for potentially explosive working areas conforms with the European ATEX directive.

The comfort features known from the funktel FC4 are implemented without restriction and make the funktel FC4 Ex HS a robust telephone for use in systems.

### Technical Data

Dimensions (L x W x H):	appr. 141 x 47 x 35 mm
Mass (with battery):	appr. 133 g
Protection class:	IP 65 (dust-proof and protected against jetted water)
Battery type:	Lithium-Ion replaceable battery, 700 mAh, screw-fastened
Charging time:	appr. 5 hours
Handset operating life	stand-by: up to 150 hours**, talk-time: up to 17 hours**
Frequency range:	1.88 ... 1.9 GHz
Transmission power:	average: 10 mW, peak: 250 mW
Acoustic signalling:	up to 100 dB(A)* at 30 cm distance
Loudspeaker:	at the back side
Hands-free speaking:	excellent voice quality
Vibration alarm:	additional or silent signalling

### Certification

ATEX:	Gas zone 1 and 2 according to EU Directive ATEX 2014/34/EU: II 2G Ex ib IIC T4 Gb
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\*) According to selected ring tone, suitable for use in noisy environments

\*\*\*) With/without blinking (silent mode) display lighting

funktel FC4 Ex HS set ..... 5.010.820.660

# funktel FC4 S

## PE handset for optimum personal security

DECT  
SECURITY  
SYSTEM **DSS**



■ The latest generation funktel FC4 S personal emergency signal unit is designed to protect persons working solo or in potentially hazardous areas or situations. Programmable sensors for both manual and automatic alarms and functions enabling localisation with area and room accuracy are combined with the user-friendly telephone functions of the FC4 series.

The sturdy, dust-tight and jet-proof housing (IP 65) makes the FC4 S a personal emergency signal system device for the highest security demands. These security handsets fully comply with DGUV 112-139 and are certified according to DIN V VDE V 0825-1 as components of the DECT Security System funktel DSS.

funktel FC4 S set ..... 5.010.860.100

### Features

- 4 manual alarm types: big red emergency call button for emergency call alarm 1+2, separate button for warning alarm 1+2
- Automatic alarm types: position alarm, no-motion alarm, time alarm and loss alarm to identify attack situations
- Localisation with inductive localisation transmitters (fine) and DECT base stations (rough)
- Guard round control functionality with localisation display
- Automatic safeguarding of device functions using sensor and localisation tests prior to use, 24-hour test
- Individual programming of the alarm types, times for pre-alarm/alarm and for the corresponding signals
- Complete integration of emergency call functions into the unit's operating concept
- High signal volume for noisy environments with additional vibration alarm
- Explosion-proof models for explosive gas-loaded atmospheres
- Colour display, illuminated keys, symbol-based and colour-coded user guidance
- Lithium-ion technology for long battery life

### Technical Data

Dimensions (L x W x H):	appr. 168 x 47 x 35 mm
Mass (with battery):	appr. 150 g
Protection class:	IP 65 (dust-proof and protected against jetted water)
Temperature range:	Handset: -10 ... +55 °C
Battery type:	Lithium-ion replaceable battery, 3,7 V / 650 mAh, screw-fastened
Handset operating life:	stand-by: 25 – 100 hours**, talk-time: 10 – 15 hours**
Frequency range:	1.88 ... 1.9 GHz
Transmission power:	average: 10 mW, peak: 250 mW
Acoustic signalling:	up to 100 dB(A)* at 30 cm distance
Loudspeaker:	at the back side
Hands-free speaking:	excellent voice quality
Vibration alarm:	additional or silent signalling
Certification:	DGUV 112-139, DIN V VDE V 0825-1

\*) Explosion-proof model: up to 94 dB(A)

\*\*\*) With/without standby display illumination



# funktel FC4 S Ex HS

# funktel FC4 LF

DECT  
SECURITY  
SYSTEM **DSS**



■ For employees in hazardous industrial environments who should receive not only explosion protection for gas, but also optimum personal protection: The funktel FC4 S Ex combines all of these features in a compact, ergonomic device. Convenient telephony and messaging functions, certified explosion protection and a wide range of sensors and alarm functions, supplemented by headset operation even in Ex environments.

■ The funktel FC4 LF model with its screw-fastened battery, side emergency call button and integrated position sensor offers automatic signalling as soon as the device is moved more than 55° from the vertical. A parametrisable pre-alarm (sound/vibration) prevents false alarms, but automatically leads to a freely parametrised telephone connection with hands-free function in the event of no reset—a valuable feature in an emergency.

funktel FC4 S Ex HS set ..... 5.010.870.660

funktel FC4 LF set (with clip)..... 5.010.840.100

## Technical Data

Dimensions (L x W x H):	appr. 168 x 47 x 35 mm*
Mass (with battery):	appr. 150 g
Protection class:	IP 65 (dust-proof and protected against jetted water)
Battery type:	Lithium-Ion replaceable battery, 700 mAh, screw-fastened
Charging time:	appr. 5 hours
Handset operating life	stand-by 32 – 150 hours**, talk-time 12 – 17 hours**
Frequency range:	1.88 ... 1.9 GHz
Transmission power:	average: 10 mW, peak: 250 mW
Acoustic signalling:	up to 93 dB(A)** at 30 cm distance
Loudspeaker:	at the back side
Hands-free speaking:	excellent voice quality
Vibration alarm:	additional or silent signalling

## Certification

ATEX: Gas zone 1 and 2 according to EU Directive  
ATEX 2014/34/EU: II 2G Ex ib IIC T4 Gb

\*) without clip 168 x 47 x 24 mm

\*\*) With/without blinking (silent mode) display lighting

\*\*\*) According to selected ring tone, suitable for use in noisy environments

## Technical Data

Dimensions (L x W x H):	appr. 141 x 47 x 35 mm
Mass (with battery):	appr. 133 g
Protection class:	IP 65 (dust-proof and protected against jetted water)
Temperature range:	Handset: -10 ... +55 °C
Battery type:	Lithium-Ion replaceable battery, 3,7 V / 650 mAh, screw-fastened
Handset operating life	stand-by: 25 – 100 hours**, talk-time: 10 – 15 hours**
Frequency range:	1.88 ... 1.9 GHz
Transmission power:	average: 10 mW, peak: 250 mW
Acoustic signalling:	up to 100 dB(A)* at 30 cm distance
Loudspeaker:	at the back side
Hands-free speaking:	excellent voice quality
Vibration alarm:	additional or silent signalling

\*) According to selected ring tone, suitable for use in noisy environments

\*\*) With/without blinking (silent mode) display lighting

# Accessories for funktel DECT handsets

## Batteries for DECT handsets

Battery for funktel FC4 <b>1</b> .....	5.010.808.000
Battery for funktel FC4 Medical .....	5.010.808.030
Battery for funktel FC4 S / FC4 LF <b>2</b> .....	5.010.868.000
Battery for funktel FC4 Ex / FC4 S Ex <b>3</b> ...	5.010.828.000
Battery for funktel FC11 / D11 <b>4</b> .....	5.010.777.000

## Spare clip

Clip for FC4 <b>5</b> .....	5.010.117.000
Clip for FC11 <b>7</b> .....	5.010.778.000
Clip for D11 .....	5.010.768.000
Clip for FC4 Medical <b>6</b> .....	5.020.808.400

## Chargers for DECT handsets

Standard Charger for FC4 / D11 / FC11 <b>8</b> .....	5.010.819.500
Standard Charger Plus for FC4 / D11 / FC11, with add. charging compartment for FC4 spare battery	5.010.819.520
Standard Charger Plus, for FC4 S / F and Ex, with add. charging compartment for spare battery . . . .	5.010.809.200



## Chargers for handsets FC4 with screw-fastened battery

DC4 S/Ex Standard. ....	5.010.809.220
DC4 S/Ex plus (for simultaneous charging of unit battery and spare/second battery) <b>9</b> .....	5.010.809.200

## Multi-Chargers

Multi-charger 6-fold for FC4, FC11 and D11 (table-top model, suitable for wall-mounting) <b>10</b> .....	5.010.809.860
Multi-charger 6-fold for FC4 S/Ex (table-top model, suitable for wall-mounting) .....	5.010.809.260
Plug-In power supply for Multi-charger 6-fold FC4 (6,5 V, 3 A) .....	5.900.602.988

## Plug-In power supply for Chargers

Plug-In power supply for DC4 (6,4 V, 620 mA)	5.900.603.566
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**Bags for DECT handsets**

**Leather bag**  
for D11, FC11, D4 and all FC4, open design, loop with 2 press-studs, for 45 mm belts **1** ..... 5.010.117.500

**Leather bag FC4**  
open design, fixed loop, for 50 mm belts **2** 5.010.117.502

**Leather bag FC4**  
open design, fixed loop, for 80 mm belts **3** 5.010.117.503

**Leather bag FC4, closed design**  
sewn, with metal clip **4** ..... 5.010.117.501

**Leather bag FC4, closed design**  
of hard leather, sturdy industrial design, with metal clip **5** ..... 5.010.117.506

**MEM card**

MEM card for FC4 series, FC11, and D11 ..... 5 900 272 583

**Headsets**

Ex headset for all DECT headset-capable handset variants; 1.3 m connection cable, jack plug **6** ..... 5.010.105.101

Headset with sound insulation for all headset-capable handset variants, with 1.3 m connection cable **6** ..... 5.900.003.881

Adapter cable for connecting headsets with 3.5 mm jack plug to funktel DECT handsets with 2.5 mm headset socket, length 140 mm ..... 5.900.704.083

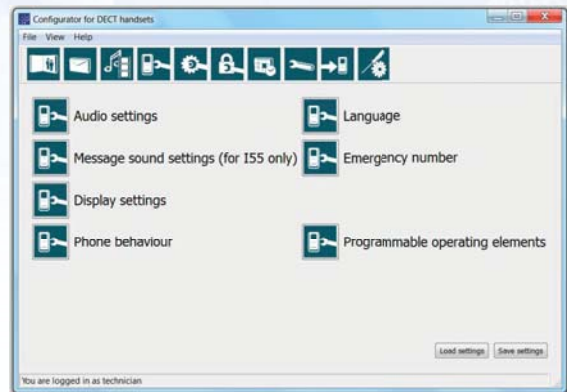
**Software**

**Configuration tool DECT handsets**

User ..... 5.010.885.000  
S-Admin ..... 5.010.888.000



**6** Symbolic picture, subject to change





# Security & Communication

MORE THAN 50 YEARS OF EXPERIENCE

Personal Security



Guard Round Control

Localisation



Explosion Protection

People Tracking



Messaging

With its head office in Salzgitter, funktel GmbH is a leading manufacturer of professional security and communication solutions based on DECT and TETRA for industry, public utilities and authorities.

We are specialists in personal emergency signal systems with mature know-how in developing and producing intrinsically safe devices that also satisfy the directives of the Employer's Liability Insurance Association (of Germany).

As one of the largest manufacturers of handsets for professional and industrial applications, our facility in Salzgitter develops and produces mobile terminals and certified personal emergency signal systems based on DECT and TETRA.

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