



Security personal security system with Mobile Radio

Security through rapid assistance



FUNK

We develop your security advantage: With special radio communication solutions

As a system supplier of on-site private communication networks, we rely on making the optimum use of modern radio technologies. The company was originally part of ANT-Nachrichtentechnik, Bosch Telecom and Tenovis Mobile Security Communications. Thanks to our vast experience we can offer you the ideal solution for your security, data and voice communication systems. Constant communication combined with unrestricted on-site freedom of movement increases your flexibility and significantly improves the speed and efficiency of your working processes.

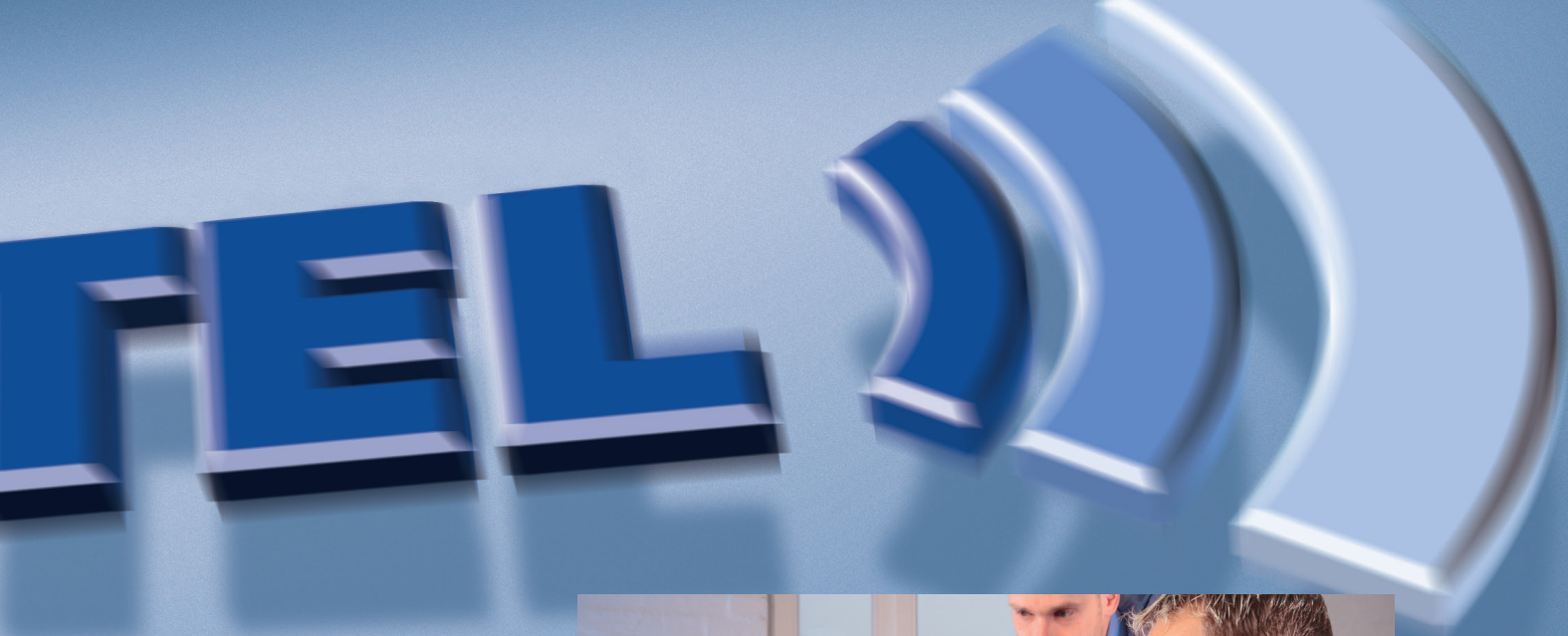
These days, people working on their own have to be protected

Regulations for health and safety at work BGR 139 (previously ZH 1/217) demand this. That workers exposed to increased safety risks require protection these include

- Workers in power stations, sewage works and on waste tips
- Staff patrolling extended plants or facilities

- Workers in areas with a risk of explosion
- Guards in the penal system
- Care staff in psychiatric medicine
- Workers in areas with a high risk of break in or attack
- Staff working alone on machines or in plant rooms

In an emergency situation or after an accident, these people must receive assistance immediately.



Assistance in emergencies: Security personal security transmitter with voice paging sends a signal and provides the location of accidents



In the event of an accident in a dangerous working environment, an emergency call can automatically be triggered by sensors, e.g. in case of a fall or unconsciousness. However, the user can also raise the alarm himself with the emergency signal key.

In order for rapid assistance to be initiated right away, the system uses inductive localisation transmitters, which detect the location of the person requiring help. This means that the emergency team can be directed to the correct place as quickly as possible.

Optimum radio coverage across the whole site is provided by transmitter and receiver stations, which guarantee perfect mobile voice communication between the helpers and the person in need of assistance.

The Security MTK 451 S personal security transceiver allows for both active alarm triggering and passive alarm triggering, such as a position alarm, no motion alarm, time alarm and loss alarm. The keypad also allows a targeted voice communications to be established.



Rapid assistance thanks to FUNKTEL

Complete from A to Z: Flexible security solutions

Top system with a range of functions

This FUNKTEL solution combines all the features of a convenient messaging system with on-site mobile radio technology and a fully functional personal security system. It includes mobile/mobile, mobile/telephone communication, the retrieval of programmed messages for particular mobile groups and the transmission of technical messages. It also has integrated emergency call forwarding

(plain text to other mobile subscribers) with a direct voice connection between the casualty and the rescue team.

System functions:

- Combination of speech paging, information transmission and personal security in a common radio network
- System features and functions comply with the German labour regulations on health and safety at work, BGR 139 (previously ZH 1/217)
- Processing of personal security alarms on OC201 system console or PC with site layout diagram in RP Win software and immediate automatic alarm forwarding to other mobile subscribers
- Automatic integration of log on and log off procedure into the security system including checking the mobile's alarm trigger sensors according to safety rules
- Self-monitoring of the system in accordance with BG regulations
- Automatic response and listening in function (with no actions required by the victim of the accident) for the fastest possible clarification of an emergency situation
- Programmable relay cards with 15 relays for alarm signally (lights, horn, auto-dialler etc.)



Usage in the prison



Reliable reporting with localisation in dangerous situations

System functions:

- Active alarm: at the push of a button (emergency call)

- Passive alarms:
 - Position alarm (position sensor)
 - No motion alarm (motion sensor)
 - Time alarm (cyclic request for acknowledgement)
 - Tear off alarm (for detection of assault)
 - Technical alarm (for mobile unit failure)

- It also has integrated emergency call forwarding (plain text to other mobile subscribers) with a direct voice connection between the casualty and the rescue team

MTK 451 S dialling transceiver

- A lightweight (180 g) unit with a full range of features

- Keypad mobile with simultaneous unrestricted personal security function in accordance with BGR 139 (previously ZH 1/217)

- Programmable pre-alarm and alarm times can be programmed separately for each alarm type

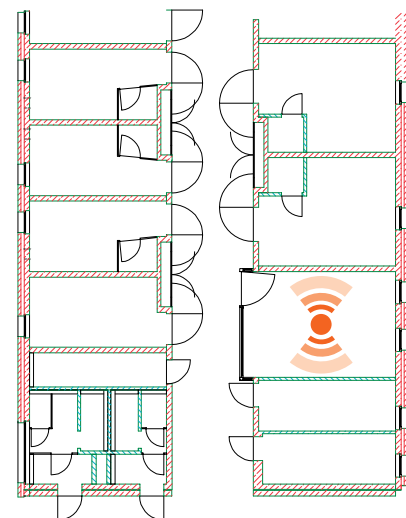
- Explosion-proof version available with Ex approval and EU type test certificate, TÜV 01 ATEX 1740X

Localisation

Location signalling (with plain text display) for the unit triggering the alarm thanks to the inductive localisation transmitter.

Guard supervision function

Automatic, non-contact recording of a guard reaching checkpoints, with real time logging and full protection of the guard by using the personal security functions.



On-site emergency signal localisation

Functions at a glance

Personal security functions

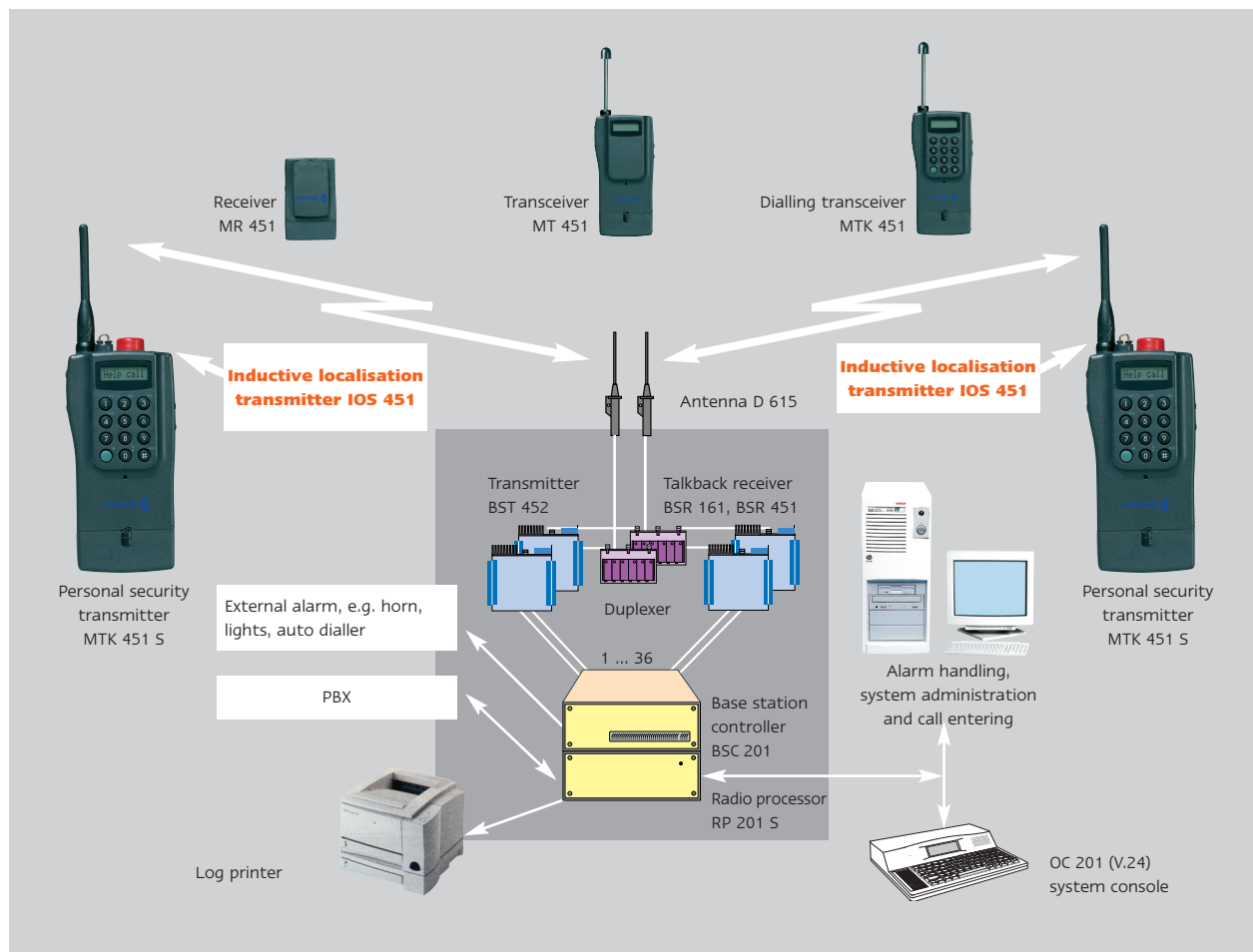
- In accordance with BG regulations, BGR 139 (ZH 1/217)
- Alarm types:
 - Pre-alarm
 - Pressure alarm
 - Position alarm
 - No motion alarm
 - Snatch alarm
 - Time alarm

- Response times and unit signals parameter can be set separately for each type of alarm
- Plain text display of alarm process
- Automatic alarm forwarding to other mobile subscribers
- Cyclic technical monitoring (technical alarm)
- Automatic logon and logoff
- Safety checks on the sensors and the radio connection at commissioning
- Up to 9,999 location zones possible

It also has integrated emergency call forwarding (plain text to other mobile subscribers) with a direct voice connection between the casualty and the rescue team.

Guard supervision function

- Non-contact, up to 9,999 check-points/location zones



Configuration of System

Technical data

MTK 451 S receiver

| | |
|---------------------|--|
| Frequency ranges | 466.49 ... 466.65 MHz *) 468.35 ... 469.15 MHz *) |
| No. of channels | 1 |
| Receiver principle | double superheterodyne |
| Modulation mode | FM (F2D, F3E)/±4 kHz deviation |
| Frequency stability | ±5 x 10 ⁻⁶ |
| AF response | 300 Hz ... 3 kHz |
| Sensitivity | typ. 20 µV/m |
| Antenna | Frame antenna |

Digital and AF component

| | |
|-----------------------------|-------------------------------|
| Address capacity | Up to 1,000,000 |
| Message capacity | 40 alphanumeric characters |
| Memory capacity | 6 x 40 characters |
| Display | 10 digit dot matrix LCD |
| Alert tone | 2,730 Hz |
| Volume at 30 cm | > 84 dB (A) |
| Call duration (normal call) | 5.5 s, can be cancelled early |

Transmitter

| | |
|------------------|--|
| Frequency ranges | 456.49 ... 456.65 MHz *) 149.89/151.07/160.../170... MHz *) |
| RF output | 50 mW ERP |
| Antenna | Flex antenna (VHF approx. 105 mm/UHF approx. 70 mm) |

Dialler

| | |
|----------------------------|---------------|
| Transmission principle | DTMF |
| Call capacity to telephone | Unlimited |
| Speed dial memory | 4 x 16 digits |

General data

| | |
|---------------------------------------|---|
| Dimensions **) (H x W x D) | 130 x 58 x 25 mm |
| Weight **) | 180 g |
| Power supply - Ave. operating time | Cartridge with built-in batteries Approx. 12 hours |
| Permissible operating temperature | -10 °C ... +55 °C |
| Protection class | IP 54 |
| EU type test certificate | TÜV 01 ATEX 1740 X |
| Ex identification | II 2 G EEx e ib IIC T6 |
| CE declaration of conformity | to 99/5/EU (R&TTE) and other standards |

*) Valid for Germany. Other frequencies on request.

**) With standard power cartridge.

FUNKTEL communication systems.
We look forward to hearing from you.

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