funkwerk gsm s:
Unlimited mobility
with maximum security.
Funkwerk Enterprise Communications GmbH with its headquarters in Nuremberg is one of Europe’s leading manufacturers of professional network access and ITC solutions for companies, public authorities, organisations and carriers.

The product portfolio includes the technologies Wireless LAN, IP-based routing, UTM, VPN, Voice over IP, Voice over VPN (VoVPN™) as well as highly integrated telecom systems. This is rounded off by GSM- and DECT™-based mobile security and communication systems.

As one of the largest manufacturers of DECT™ units and personal emergency alarm systems for professional and industrial applications our Salzgitter facility turns out around 250,000 mobile handsets per year.

The long-term availability of spare parts to come and a repair turnaround of mostly less than 24 hours guarantee high investment security and permanent operational readiness of our systems.

Industrial, radio-based personal emergency signal units usually operate using proprietary, incompatible private radio networks. The installation of blanket radio coverage for the terrains and buildings involved was no simple task. And now Funkwerk Enterprise Communications is presenting its new innovative concept with the latest emergency signal systems in the funkwerk gsm s range.

By using the public GSM mobile phone network, which in the meantime offers almost blanket availability, personal security can be offered at a higher level of mobility than ever before with easy installation and full telephony integration.

The design, sturdiness and scope of features of the new funkwerk units are all "state of the art". More than 40 years of experience in the development and marketing of emergency signal systems guarantee the highest operational reliability and permanent low costs whilst adhering to the strictest industrial safety standards.
funkwerk gsm s: Mobile and secure. Wherever you are.

1. Personal security at the highest level

Even the basic model funkwerk gsm s is equipped with full GSM telephony integration, well-thought-out operation with a large red emergency button (pushbutton alarm) and a high-quality sensor system for position alarm, time alarm and no-motion alarm (dead-man switch). A cyclical function test (life check), automatic sensor test when switched on and the guard control mode round off the safety mechanisms. The parameters for each alarm type can, of course, be set separately.

In the event of an alarm a voice connection is established and an SMS text is transmitted. If necessary the position of the handset can be determined using the GSM cell.

The operator console can also remotely trigger the functions “Open listening” and “No-hands” or activate the integrated signal generator for acoustic localisation.

2. Exact localisation using the GPS adapter

A precise localisation, accurate almost to the last meter, of employees on the move is possible with the funkwerk gsm s plus personal emergency signal system in conjunction with the funkwerk gmt vehicle add-on unit. The GPS positional data determined at the funkwerk gmt is transmitted permanently to the gsm s plus logged on within the radius of action and forwarded together with an manual (active) or a will-independent (passive) alarm.

New: Exclusive to Funkwerk!
Exact representation for optimum assistance and documentation

The funkwerk GSM operator console software features:

- A graphic representation of the position of the transmitted emergency alarm signal on an interactive map or on a location diagram
- Exact recording of all transmitted information
- Triggering of an acoustic signal or of the no-hands function by the operator console

This guarantees that specific assistance can be provided at all times without any delay.

Building and terrain security using beacon transmitters

By installing fixed-position, battery-operated funkwerk gso beacon transmitters the movement of personnel can be exactly recorded, e.g. the patrol routes on extensive company premises or entry/exit at warehouses or company gates. The positional data transmitted is stored in the funkwerk gsm s plus and transmitted if an alarm is triggered.
funkwerk gsm s
System family

Technical data

- Dimensions: 115 x 44 x 25 mm
- Weight: 115 g
- Protection class: IP 65 (dustproof, splashproof)
- Temperature range:
  - Operation: -10 °C … +55 °C
  - Charging: 0 °C … +45 °C
  - Storage: -25 °C … +70 °C
- Power supply: 3.7 V lithium-ion storage battery, can be charged in corresponding charging unit
- Stand-by time:
  - gsm s Ex: 40 hours (typ.)
  - gsm s Ex plus: 20 hours (typ.)
- GSM:
  - Dualband 900 / 1800 MHz, 3 V SIM card
- Acoustic elements:
  - Loudspeaker: open listening, hands-free mode omnidirectional
  - Microphone: omnidirectional
  - Signal generator: 120 dB SPL
- Display elements:
  - Top LED: green, GSM status
  - Centre LED: red, Alarm status
  - Bottom LED: yellow/green, battery/charge status
- Operating elements:
  - Large pushbuttons: Alarm and voice call control
  - Small pushbutton: On/Off switch
- Localisation ISM-Band*:
  - Downlink frequency (gso, gmt): 869.6875 MHz*
  - Uplink frequency (gsf): 869.2125 MHz**
  - RF nominal output: 5 dBm (typ.)
  - FSK modulation: ± 3 kHz … ± 4 kHz
- Localisation using funkwerk gso beacon transmitter*:
  - < 10 location points: plain text SMS or GSS operator console software
  - > 10 location points: only GSS operator console software

Main system features:

- GSM voice communication and personal security in a single device and conforming to the German statutory health and accident insurance system (according to BGR)
- Large red and clearly identifiable emergency call button
- Voice call and SMS transmission in the event of an alarm
- Localisation using funkwerk gso* localisation transmitter
- Localisation using funkwerk gmt* GPS vehicle transceiver
- Alarm forwarding also possible without GSM network using the funkwerk gsf* remote control module
- Acoustic localisation with a 120 dB SPL loudspeaker
- Open listening, no-hands operation and vibration alarm
- Unit parameter setting using remote maintenance
- Sturdy casing in business look
- Protection class IP 65
- Weight: 115 g

Active (will-dependent) alarm:

- Push-button alarm

Passive (will-independent) alarms:

- Position and no-motion alarm
- Time alarm
- Acoustic signalling by pre-alarm

Safety functions:

- Parameters of each alarm type can be separately set
- Cyclical life-check with message to the operator console
- Sensor test when switched on and cyclically
- Guard control mode
Funkwerk GMT Mobile GPS Vehicle Transceiver*

Features:
- Vehicle adapter for transmitting GPS positional data to the funkwerk gsm s plus
- In the event of an alarm the funkwerk gsm s plus transmits the last-received GPS positional data together with the other alarm data to the operator console
- External triggering or interrogation of the GPS positional data by the operator console software is possible
- Flexible design for use in all vehicle types – thanks to simple installation with no need for configuration

Scope of delivery:
- funkwerk gmt location beacon
- GPS receiver (funkwerk GPS mouse)
- DC-DC transformer for 12/24 V vehicle cigarette lighter
- Power supply cable and installation material

Technical data of funkwerk gmt:

<table>
<thead>
<tr>
<th>Dimensions</th>
<th>80 x 45 x 26 mm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weight</td>
<td>50 g</td>
</tr>
<tr>
<td>Temperature range</td>
<td>Operation: –20 °C … +55 °C</td>
</tr>
<tr>
<td></td>
<td>Storage: –25 °C … +70 °C</td>
</tr>
<tr>
<td>Power supply</td>
<td>5 V DC, 20 mA (typ.)</td>
</tr>
<tr>
<td>Localisation in ISM band:</td>
<td>Uplink frequency: 869.6875 MHz*</td>
</tr>
<tr>
<td></td>
<td>RF nominal output: –6 dBm ± 3 dBm</td>
</tr>
<tr>
<td></td>
<td>FSK modulation: ± 3 … ± 4 kHz</td>
</tr>
<tr>
<td></td>
<td>Cycle time for ID transmission: 4 s (typ.)</td>
</tr>
</tbody>
</table>

DC Voltage Converter for Funkwerk GMT

Technical data:

<table>
<thead>
<tr>
<th>Temperature</th>
<th>Operation: –20 °C … +70 °C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Input voltage</td>
<td>12 … 24 V DC</td>
</tr>
<tr>
<td>Output voltage</td>
<td>5 V DC</td>
</tr>
<tr>
<td>Output current</td>
<td>max. 750 mA</td>
</tr>
<tr>
<td>Fuse</td>
<td>2 A, slow-blow, integrated</td>
</tr>
</tbody>
</table>

Funkwerk GSO* Beacon Transmitter

Technical data of funkwerk gso:

<table>
<thead>
<tr>
<th>Dimensions</th>
<th>120 x 80 x 55 mm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weight</td>
<td>250 g</td>
</tr>
<tr>
<td>Protection class</td>
<td>IP 65 (dustproof, splashproof)</td>
</tr>
<tr>
<td>Temperature range</td>
<td>Operation: –20 °C … +55 °C</td>
</tr>
<tr>
<td></td>
<td>Storage: –25 °C … +70 °C</td>
</tr>
<tr>
<td>Power supply</td>
<td>1 lithium battery 3.6 V, 7.2 Ah</td>
</tr>
<tr>
<td>Service life</td>
<td>2 years (typ.)</td>
</tr>
<tr>
<td>Localisation in ISM band:</td>
<td>Uplink frequency: 869.6875 MHz*</td>
</tr>
<tr>
<td></td>
<td>RF nominal output: –3 dBm ± 3 dBm</td>
</tr>
<tr>
<td></td>
<td>FSK modulation: ± 3 … ± 4 kHz</td>
</tr>
<tr>
<td></td>
<td>Cycle time for ID transmission: 4 s (typ.)</td>
</tr>
<tr>
<td>Setting range for transmission strength (only gso v and gso va):</td>
<td>–20 dB, based on nominal output</td>
</tr>
<tr>
<td>Connection for external aerial (only gso va):</td>
<td>TNC female</td>
</tr>
</tbody>
</table>

Funkwerk GSF* Telecontrol Module

Technical data of funkwerk gsf:

<table>
<thead>
<tr>
<th>Dimensions</th>
<th>125 x 67 x 41 mm (excl. safety plug socket)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weight</td>
<td>350 g</td>
</tr>
<tr>
<td>Protection class</td>
<td>IP 40 (impurity &gt; 1 mm, no waterproofing)</td>
</tr>
<tr>
<td>Temperature range</td>
<td>Operation: –20 °C … +55 °C</td>
</tr>
<tr>
<td></td>
<td>Storage: –25 °C … +70 °C</td>
</tr>
<tr>
<td>Power supply</td>
<td>safety plug socket: 230 V AC, 50 Hz</td>
</tr>
<tr>
<td></td>
<td>Current consumption: 50 mA</td>
</tr>
<tr>
<td>Switch output</td>
<td>Connection: 8-pole RJ45 socket</td>
</tr>
<tr>
<td></td>
<td>Type: 1 Relay contact (changeover)</td>
</tr>
<tr>
<td></td>
<td>Voltage: 12 V DC (max.)</td>
</tr>
<tr>
<td></td>
<td>Current: 50 mA (max.)</td>
</tr>
<tr>
<td></td>
<td>Alarm signal contact time: 2 s (typ.)</td>
</tr>
<tr>
<td></td>
<td>Voltage failure signal contact time:</td>
</tr>
<tr>
<td></td>
<td>Permanent</td>
</tr>
<tr>
<td>LED</td>
<td>Operation: orange</td>
</tr>
<tr>
<td></td>
<td>Active: green</td>
</tr>
<tr>
<td>Remote alarm triggering in ISM band:</td>
<td>Downlink frequency: 869.2125 MHz**</td>
</tr>
<tr>
<td></td>
<td>FSK modulation: ± 3 kHz … ± 4 kHz</td>
</tr>
</tbody>
</table>

*) Only with/in combination with gsm s plus
**) Ex-proof approval procedures underway in compliance with ATEX / BGR
1) Reserved for “Alarms”
2) Reserved for “Social Alarms”

Funkwerk Enterprise Communications GmbH
John-F.-Kennedy-Str. 43-53
D-38228 Salzgitter
Phone:  +49 - 1805 - 66 99 92*
Fax:  +49 - 5341 - 285-709
www.funktel.funkwerk-ec.com