



**funkwerk gsm s:  
Unlimited mobility  
with maximum security.**

**funkwerk gsm s / gmt / gso:  
The GSM-based personal  
emergency signal system family**

# 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.



*funkwerk gsm s (original size)*

## **funkwerk gsm s: The new personal emergency signal system family**

**Maximum mobility, optimum  
safeguarding, low investment cost.  
Only from Funkwerk.**

Industrial-grade, radio-based personal emergency signal systems mostly rely on proprietary and incompatible private radio networks. Therefore installing a flawless radio coverage in areas and rooms to be safeguarded involved great expense. Now Funkwerk Enterprise Communications GmbH presents a new innovative concept with its new personal emergency signal systems of the funkwerk gsm s family.

Use of the public GSM mobile phone network which in the meantime provides virtually complete area coverage enables personal safeguarding combined with unknown mobility, yet the system is very easy to set up and offers full telephony integration.

Design, sturdiness and a wide scope of functions of the new funkwerk units represent the state of the art. More than 40 years of experience in developing and operating personal emergency signal systems guarantee you maximum operational safety and lasting economic efficiency while meeting the strictest industrial safety standards.

## funkwerk gsm s: Mobile and secure. Everywhere.

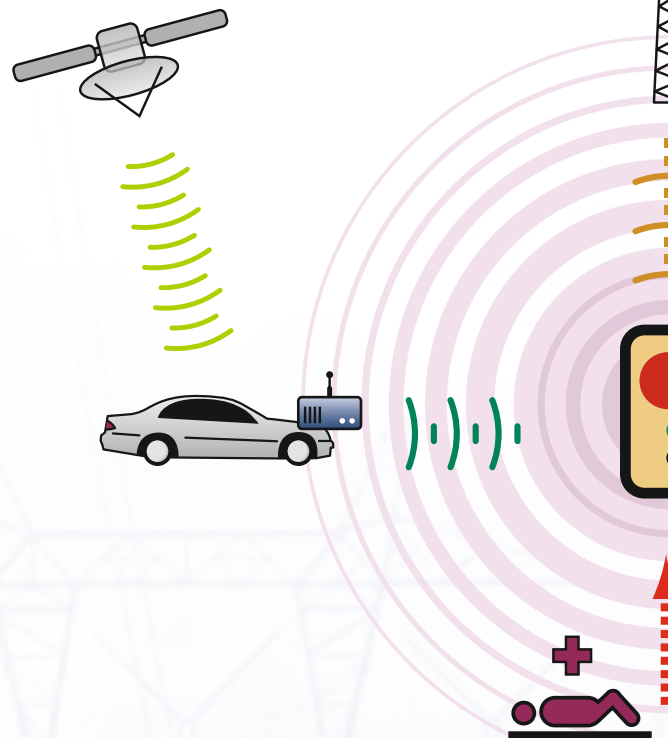
### ① Top-level personal safeguarding

Even the basic model **funkwerk gsm s** offers full integration of GSM telephony, well-thought-out operation with a big red emergency call button (push-button alarm) and high-quality sensors for tilt alarm, time and no-motion alarms (dead man's circuit). An automatic cyclic function check (life check), automatic sensor test upon putting the unit into operation and the watchmen control mode round off the range of safety features. It goes without saying that all alarm types can be individually parameterised.



In case of an alarm, a voice connection is set up and a SMS text message is transmitted. If required, the position of the mobile unit can be determined using the GSM cell as a reference.

In addition, the operator console can activate the „Listening-in“ and „Hands-free talking“ functions by remote control or activate the integrated signal generator for acoustic positioning.



### ② Exact localisation using the GPS adapter

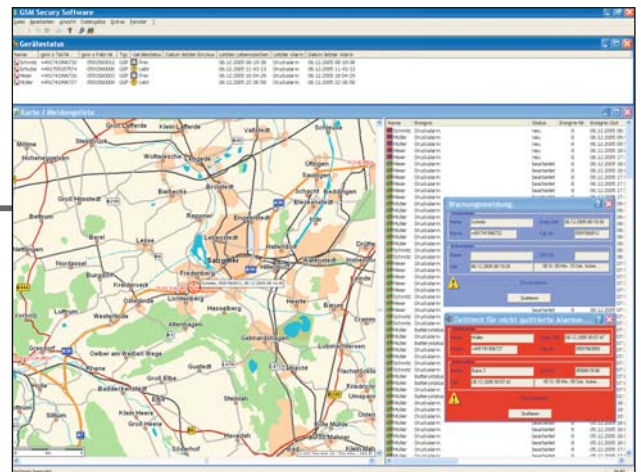
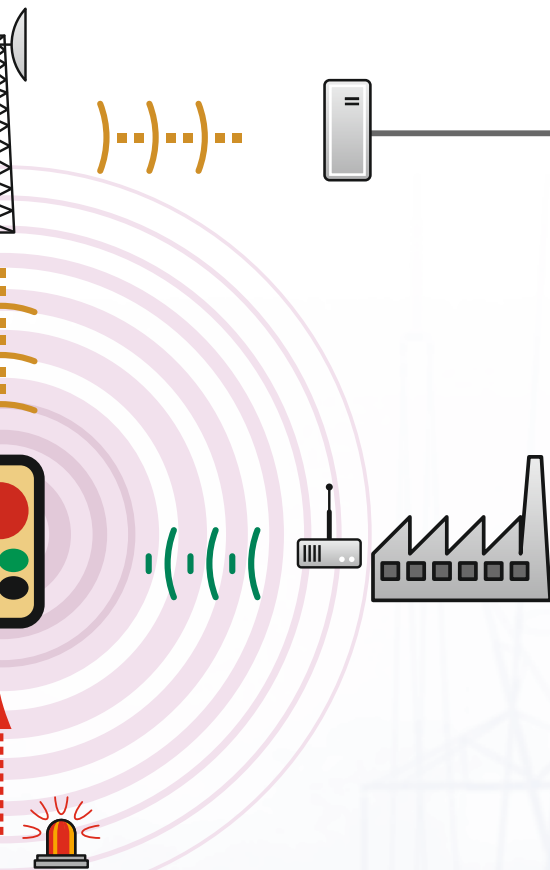
New: Only from Funkwerk!

The **funkwerk gsm s** plus personal emergency call system enables exact localisation of mobile employees with an accuracy of almost one metre in connection with the **funkwerk gmt** GPS automotive transceiver, a vehicle accessory.

The GPS position data determined on the **funkwerk gmt** are permanently transmitted to the **funkwerk gsm s** plus unit logged in within the coverage radius and passed on along with a manual or will-independent alarm.







## Precise representation for optimum rescue operations and documentation

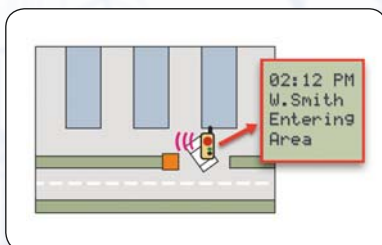
The funkwerk GSS operator console software enables:

- ▶ Graphical representation of the position of the transmitted emergency signal on an interactive map or in detail on a site plan
- ▶ Exact logging of all transmitted information
- ▶ Activation of acoustic signal or hands-free talking function from the operator console

This ensures rescue operations without delay at the right place, any time.

## ③ Safeguarding of objects and premises using beacon transmitters

The use of stationary, battery-powered funkwerk gso beacon transmitters allows movements of persons to be precisely logged, e.g. guard rounds on extensive works premises or entry/exit movements from warehouses or works gates.



The position data transmitted in this way are stored in the funkwerk gsm s plus and transmitted along with an alarm.



## funkwerk gsm s System family



funkwerk gsm s

funkwerk gsm s plus

funkwerk gsm s Ex\*\*

### Technical data

Dimensions:	115 x 44 x 25 mm	
Weight:	115 g	
Degree of protection:	IP 65 (dust-tight, jet-proof)	
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, is charged in the associated charger	
Standby period:	gsm s Ex:	40 hours (typ.)
	gsm s Ex plus:	20 hours (typ.)
GSM:	Dual band 900 / 1800 MHz, 3 V SIM card	
Acoustic elements:	Loudspeaker:	Listening mode, hands-free talking
	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
Controls:	Big push-button:	Alarm and voice call control
	Small push-buttons:	On/off
ISM-Band localisation*:	Downlink frequency (gso, gmt):	869,6875 MHz*
	Uplink frequency (gsf):	869,2125 MHz**
	Rated RF power:	5 dBm (typ.)
	FSK modulation:	± 3 kHz ... ± 4 kHz
Positioning by funkwerk gso beacon transmitter*:	< 10 positioning points:	Plain text SMS or GSS operator console software
	> 10 positioning points:	Only GSS operator console software

### Main system features:

- GSM voice communication and personal security conforming with BG regulations in one single unit
- Big red emergency button is clearly felt
- Voice connection and text message (SMS) in case of alarm
- Localisation by means of funkwerk gso\* beacon transmitter
- Localisation by funkwerk gmt\* GPS automotive transceiver
- Alarm transfer even without a GSM network by means of funkwerk gsf\* remote alarm receiver
- Acoustic positioning with 120 dB SPL loudspeaker
- Listening-in, hands-free talking and vibration alarm
- Unit parameterisation by remote maintenance
- Sturdy business-look housing
- Degree of protection IP 65
- Weight: 115 g

### Will-dependent alarm:

- Push-button alarm

### Will-independent alarm types:

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

### Security functions:

- Alarm types can be individually parameterised
- Cyclic life check with message to operator console
- Sensor test both upon putting the unit into operation and cyclically
- Watchmen control mode

## FUNKWERK GMT: MOBILE GPS AUTOMOTIVE TRANSCEIVER\*

### Features:

- Vehicle adapter for transmitting GPS position data to the funkwerk gsm s plus
- In case of an alarm, the funkwerk gsm s plus transmits the latest received GPS position data to the operator console along with the other alarm data
- External triggering and/or scanning of GPS position data is possible using the operator console software
- Can be used flexibly in all vehicles due to easy installation without any configuration

### Scope of supply:

- funkwerk gmt beacon transmitter
- GPS receiver (funkwerk GPS mouse)
- DC/DC voltage converter for 12/24 V vehicle-type cigarette lighter
- Power supply cable and fastening material

### Technical data of funkwerk gmt:

Dimensions:	80 x 45 x 26 mm	
Weight:	50 g	
Temperature range:	Operation:	-20 °C ... +55 °C
	Storage:	-25 °C ... +70 °C
Power supply:	5 V DC, 20 mA (typ.)	
Localisation in ISM range:	Uplink frequency:	869,6875 MHz*
	Rated RF power:	-6 dBm ± 3 dBm
	FSK modulation:	± 3 ... ± 4 kHz
	Cycle time for transmission of ident.:	4 s (typ.)

## GPS RECEIVER FOR FUNKWERK GMT

### Technical data:

Interface:	Serial (RS232)	
Dimensions:	41 x 41 x 18 mm	
Degree of protection:	IP 64 (dust-tight, jet-proof)	
Weight:	80 g incl. cable	
Temperature range:	Operation:	-40 °C ... +85 °C
	Storage:	-55 °C ... +100 °C
Power supply:	5 V DC, 90 mA	
Display element:	LED (satellite fix, satellite search)	
Maximum height:	18,000 m	
Maximum speed:	1,850 km/h	
Receiver:	Channels:	12
	Frequency:	1575,42 MHz (L1), C/A code
Sensitivity:	Satellite fix:	-152 dBm
	Satellite search:	-139 dBm
Detection time:	Hot start:	2 s (typ.)
	Warm start:	35 s (typ.)
	Cold start:	50 s (typ.)

## DC/DC CONVERTER FOR FUNKWERK GMT

### Technical data:

Temperature:	Operation: -20 °C ... +70 °C
Input voltage:	12 ... 24 V DC
Output voltage:	5 V DC
Output current:	max. 750 mA
Fuse:	2 A, slow-blow, built-in

## BEACON TRANSMITTER FUNKWERK GSO\*

### Technical data:

Dimensions:	120 x 80 x 55 mm	
Weight:	250 g	
Degree of protection:	IP 65 (dust-tight, jet-proof)	
Temperature range:	Operation:	-20 °C ... +55 °C
	Storage:	-25 °C ... +70 °C
Power supply:	1 lithium battery 3.6 V, 7.2 Ah	
Service life:	2 years (typ.)	
Localisation in ISM band:	Uplink frequency:	869,6875 MHz*
	Rated RF power:	-3 dBm ± 3 dBm
	FSK modulation:	± 3 ... ± 4 kHz
	Cycle time for transmission of ident.:	4 s (typ.)
Transmit power adjustment range (only gso v and gso va):		
Connection for external antenna (only gso va):		
TNC female		

## REMOTE ALARM RECEIVER FUNKWERK GSF\*

### Technical data:

Dimensions:	125 x 67 x 41 mm (excl. safety plug socket)	
Weight:	350 g	
Degree of protection:	IP 40 (foreign objects > 1 mm, no water protection)	
Temperature range:	Operation:	-20 °C ... +55 °C
	Storage:	-25 °C ... +70 °C
Power supply:	Earthed socket:	230 V AC, 50 Hz
	Current consumption:	50 mA
Switch output:	Connection:	8-pole RJ45 socket
	Type:	1 Relay contact (changeover)
	Voltage:	12 V DC (max.)
	Current:	50 mA (max.)
	Alarm message contact time:	2 s (typ.)
	Power failure message contact time:	Permanent
LED:	Operation: orange	Active: green
Remote alarm triggering in ISM range:		
Downlink frequency:		
FSK modulation:		
869,2125 MHz**		
± 3 kHz ... ± 4 kHz		

\*) Only for the version / in connection with gsm s plus

\*\*) Explosion protection approval procedure according to ATEX / BGR being processed

\*) Reserved for "Alarms"

\*\*) Reserved for "Social Alarms"



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