



Telephone without Limits!

**Top quality and ergonomic phones
for business and home office requirements.**

**elmeg CS series
elmeg IP/IP-S series
elmeg CA50**



Flexible and Future-Proof.

Funkwerk Enterprise Communications: All-round provider of professional voice-data solutions

The Funkwerk Enterprise Communications portfolio comprises wireless LAN solutions, solutions for IP-based network access and IP network protection, as well as systems for VPN networks, Voice over IP, and Voice over VPN. This is complemented by highly integrated, modular ISDN/DSL telecommunications solutions, as well as personal security systems for the industrial sector and services for GSM, DECT and analog radio communications technology.

This extensive product portfolio gives companies and institutions of any size the flexibility to connect different company locations with one another via VPN, to integrate mobile employees into the corporate network, and to set up and operate flexible, reliable, high-speed telecommunications or wireless LAN infrastructures with a wide range of features.

Security must be a top priority and Funkwerk Enterprise Communications provides the most innovative security and encryption technologies, as well as IPS, IDS and UTM systems to protect your enterprise data.

Make your phone into a useful tool.

Digital communication today: Worlds are merging.

The advance of digital communication continues. Information technology and telecommunications are merging evermore while the demands for flexibility and system integration increase. Digital services and call flexibility are becoming increasingly important for companies, along with the seamless integration of home office workplaces into corporate communication systems.

It is this integration that will have a major influence on the success or failure of your business.

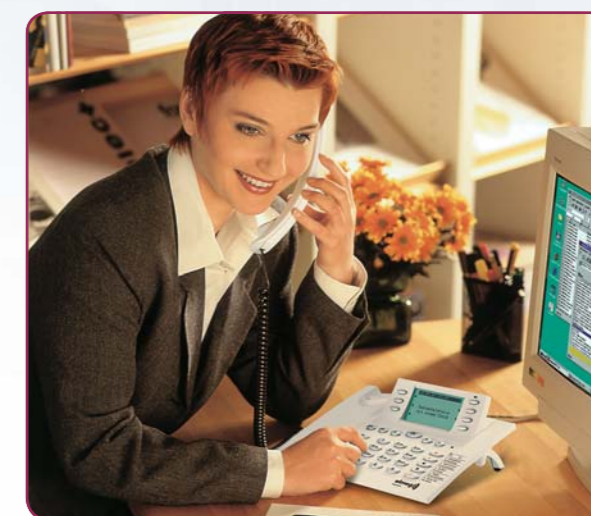
Business telephony offers more functions—but does that also mean more convenience?

Conventional telecommunication systems offer a wide range of features: Consultation call, alternation between lines, 3-party conferences, team functions, SMS in the PSTN, automatic call-back, call pick-up, to name but a few. However, many users only use a fraction of these functions, because their telephones do not offer the best ergonomics and their operation is too complicated and confusing—or the terminal device simply has not been matched to the central system functions.

Many years of experience in the development and design of systems telephones has gone into the elmeg CS and IP-S series terminal devices. The result is meticulous matching of the system features combined with the experience gained in user navigation of systems telephones.

The concept of unified user navigation with softkeys and the ability to operate frequently required system operations with user defined function keys—while keeping them permanently in view on the status LED—makes your telephone into a powerful communication tool.

The performance and the range of functions of ITC systems are constantly growing.



High quality, ergonomic, durable

elmeg systems telephones pay dividends in everyday business: the easy-to-read display, the function key principle and the intuitive keypad layout are the result of many years of ergonomic and usability optimization.



Systems telephony over IP

To keep abreast of the increasing proliferation of Internet-based telephony Funkwerk Enterprise Communications offers fully digital telephones—the elmeg IP-S series—that provide the same features as conventional telephony for VoIP. Thanks to the seamless integration of VoIP and conventional telephony, which are offered today by most elmeg ITC systems, all communication platforms are merging into a unified, convergent solution, with maximum convenience.

elmeg ISDN systems telephones

elmeg CS290 / CS290-U

The elmeg CS290 offers stylish elegance and excellent ergonomic features. The menu navigation with three softkeys and the alpha-numeric display make operation simple and intuitive.



Five freely programmable keys with LED support, partly in two colours, display the states of important functions to the user at all times. As with large elmeg systems phones, the keys can be used as line keys, to activate call forwarding, for headset and team functions, to operate an external voice mail system, or to transmit SMS.

The device console is height-adjustable, offering the user an optimum view of all functions. The bright LED also indicates incoming calls in a clearly visible manner.

Further features for the office environment are offered by the list of calls received with ten possible entries, redialling of the last five numbers stored, and a short code dialing memory for ten further entries (VIP memory).

The elmeg CS290-U systems telephone can be used for direct U_{p0} access without converter, including PRI port for further ISDN terminal devices.

elmeg CS400xt

The elmeg CS400xt ISDN systems phone closes the gap between the elmeg CS290 models for standard workplaces and the elmeg CS410 for the professional environment.

The elmeg CS400xt is equipped with ten additional, LED-supported function keys. In addition to short code dialing, they can be used as line keys, to check in/out teams, for daytime-dependent operation, or for other freely programmable functions.



Like the elmeg CS410, the elmeg CS400xt has a large, 7-line display and seven soft keys for menu navigation. In contrast to the premier module, the elmeg CS400xt comes without the USB port, the audio in/out ports, and support of the optional call answering machine module.

In combination with the NSP module, the elmeg CS400xt can be operated in emergency situations. So even after power failure you will still be accessible. Access to U_{p0} networks is easy to achieve with an external converter.

elmeg CS410 / CS410-U

This is the systems phone you have been waiting for: optimally matched to the elmeg ICT and elmeg T484 series of modular PBXs, the elmeg CS410 meets all the requirements of the professional user.

Its modular design serves to meet individual requirements: an optionally available call answering module (see right) offers a recording time of up to 48 minutes and can easily and quickly be integrated into the phone.



Professional PC interfaces: USB permits the simple installation of CTI functions and data communications and provides these functions to configure your PBX, for instance.

Up to three T400 keyboard extensions can be connected to your elmeg CS410, adding up to 65 programmable function keys, for example, with 130 destination numbers in direct access mode.

As the elmeg CS410-U variant, the elmeg CS410 can be used for direct U_{p0} access without a converter and includes a PRI port for further ISDN end devices.

Extensions

elmeg T400 / elmeg T400/2

Convenient keyboard extensions for elmeg CS410, CS410-U, elmeg IP-S400, and elmeg CS400xt

Extend your system phone by 20 function keys (10 for elmeg T400/2). All keys can be freely programmed on two levels with functions or phone numbers and each has an LED. Employees are therefore available at the push of a button or individual lines can be assigned a key for alternation between lines. Up to three extensions can be cascaded together.



elmeg call answering machine module

Extension for elmeg CS410 / CS410-U

The call answering machine module offers up to 48 minutes of recording time and convenient operation with optimal integration in the display mode of the systems telephone. As a special feature, an additional system telephone on the PBX can be provided with separate call answering functions.

- ▶ Up to ten announcement texts, time-controlled
- ▶ Message forwarding and remote query
- ▶ Saving messages on the PC



You can find more information on compact and modular PABX systems in the "elmeg ICT" and "funkwerk T/TR" product folders.

elmeg IP telephones: The new generation of digital communication.

elmeg IP50

With the VoIP newcomer model funkwerk IP50, you can conveniently phone via the Internet. The use of global SIP standards makes it future-proof and protects your investment.

funkwerk IP50 offers an alpha-numeric display with two 16-character lines. Configuration is performed directly on the phone or via a PC.



Highlights:

- ▶ Simple, menu-driven operation
- ▶ Up to 3 SIP accounts
- ▶ Hands-free talking
- ▶ Internal phone book with 140 entries
- ▶ Call holding and transfer
- ▶ Call forwarding
- ▶ Lists for accepted and missed calls
- ▶ Ten function keys, assigned with the most important functions

elmeg IP290

With the elmeg IP290 standalone device you will enter the age of Internet telephony. The top-quality and innovative elmeg IP290 satisfies all modern business requirements: Comprehensive features, such as an internal phone book with 100 entries, call holding / transfer, integrated music on hold, call forwarding, and many more, provide business telephony functions with VoIP.



Based on the SIP standard (RFC 3261-compatible SIP stack), elmeg IP290 is compatible with almost all standard-compliant devices on the market (e.g. adapters, VoIP PBXs and VoIP routers) or software applications.

The RFC 3261-compatible SIP stack ensures optimum compatibility with many adapters and VoIP routers currently offered in the market.

Two Ethernet ports with VLAN support allow elmeg IP290 to be directly connected to a PC: just one LAN port for the PC and IP telephone!



elmeg IP-S290plus

The new elmeg IP-S290plus IP systems telephone and the VoIP-VPN Gateway module means that convenient elmeg systems telephony is also available in IP networks. Based on the elmeg CS290, the elmeg IP-S290plus supports all ICT system features, such as alternation between lines, call transfer, 3-party conference, team function and line keys.

Its own headset port allows for the easy and flexible use of a headset that can be easily controlled using two programmable keys. "Headset on/off" and—perfect in call centres for example—with the "Automatic call acceptance" function.



With Power over Ethernet (PoE), all the convenience functions—open listening, VIP memory and flexible number memory for incoming and outgoing calls—make the elmeg IP-S290plus the best standard systems telephone for flexible, network-based office environments.

elmeg IP-S400

The elmeg IP-S400 provides the connection to the VoIP-VPN Gateway module and is a state-of-the-art solution for IP-based systems telephones. The illuminated, 7-line display, seven soft keys for menu navigation, five freely configurable function keys, and full support for all elmeg systems telephony functions make the elmeg IP-S400 the perfect terminal device in IP-based communication networks.

Two Ethernet connections permit the joint connection of systems telephones and PC via a single LAN interface. Using Power over Ethernet, the elmeg IP-S400 can even be powered via the LAN.



A separate headset port and comprehensive headset functions keep your hands free when making phone calls. Alternatively, you can activate open listening and top quality hands-free phoning.

An intelligent list of calls received, redialling, VIP memory and a proper internal phone book with 250 possible entries provide for perfect convenience.

The elmeg IP-S400 can also be extended with the keyboard expansions elmeg T400 and T400/2.

Wireless and flexible. No compromises.

The handsets for the system elmeg DECT400—elmeg ICT wireless systems telephony.

elmeg ICT with elmeg DECT 400

Designed particularly for applications in combination with the elmeg ICT series systems, the elmeg DECT400 system combines the unlimited flexibility of wireless phones with the convenience and the large range of functions offered by systems phones. The systems features can be provided for all elmeg DECT handsets in the wireless mode. This includes direct, alpha-numeric access to the central phone book of the PBX or automatic follow me (automatic forwarding of incoming calls to your elmeg DECT handset when taking it out of the charging cradle).

The integration of the elmeg DECT400 system as a module into ICT systems permits centralised configuration, such as the activation of specific features for individual handsets.

The elmeg DECT400 system consists of several components (module DECT multicell 2/4, rfp, handsets, repeaters, directional antennas, etc.) delivering a complete high-performance, wireless solution, which can also be used in large companies and in a wide-range of outdoor applications.

elmeg DECT handset 400-20

The elmeg DECT 400-20 and 400-40 mobile handsets with their ergonomic and elegant designs ensure optimum operability and functionality. CLIP (Calling Line Identification Presentation) for incoming calls, menu navigation in clear text, and automatic call acceptance make phoning a pleasure.

The memory stores up to 65 phone book entries and permits redialling of the last ten numbers stored. With the 3-line graphics display, signalling LED, and muting option, this mobile handset is able to meet all user requirements.

elmeg DECT handset 400-40

As the high-end version, the elmeg DECT handset 400-40 additionally offers vibration alarm, headset connection, open listening and protection against dust and water spray according to IP 54.

Both models are optimally adapted for use with the elmeg DECT400 system. Automatic handover is a fixed part of the systems and ensures permanent availability and maximum freedom of the caller. The comprehensive accessories set with leather case, belt clip, etc. is available on request.



Digital convenience— analog connection. And all for an entry level price.

elmeg DECT80

funkwerk DECT80 is a convenient wireless DECT phone with GAP standard. DECT80 is characterized by its elegant design and an illuminated color display. Four 16-character lines provide a clear overview of caller information from the integrated phone book, the caller list or from the central PBX phone book from funkwerk ICT systems. Operation and configuration of the funkwerk DECT80 is menu-driven and is available in German and English, as well as six further languages.



elmeg DECT80 Highlights:

- ▶ Analog phone to DECT/GAP standard
- ▶ Graphic color display with background illumination
- ▶ Display of call number on calling, also during a connection (CLIP FSK, CLIP off Hook)
- ▶ Display of the name from the PBX phone book (CNIP)
- ▶ Automatic transfer of date and time from the PBX
- ▶ Open listening and hands-free from the handset
- ▶ Phone book and VIP memory
- ▶ R/Flash key for controlling and operating functions on the PBX (call waiting, call back, alternation between lines, 3-party conferences, call transfer, etc.)

elmeg CA50

The analog table phone elmeg CA50 is more than a standard terminal device: As a cost-effective and robust alternative to CS series ISDN comfort/systems phones, the elmeg CA50 is an ideal solution for environments with many PBX units, such as hotels, nursing homes, or medium-scale offices.

In spite of its compact dimensions, elmeg CA50 is a full-scale business phone with all the important convenience features for operation and handling. The ergonomic fixing of the handset and the easy-to-read, 3-line alpha-numeric display make operation a pleasant task.

elmeg CA50 highlights:

- ▶ 3-line alpha-numeric display
- ▶ List of incoming calls
- ▶ Headset jack
- ▶ 15 one-touch dialing keys
- ▶ Hands-free calling
- ▶ Consultation call / Flash
- ▶ Personal telephone book with 70 entries
- ▶ Redialling for the last ten numbers



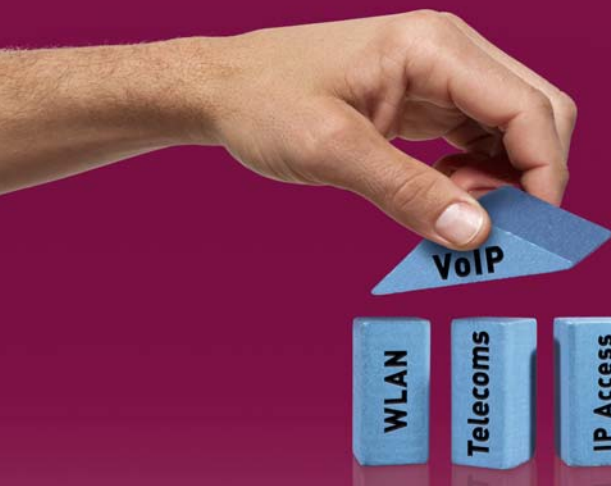
PERFORMANCE FEATURES SYSTEM TELEPHONES

	elmeg CS290	elmeg CS290-U	elmeg CS400xt	elmeg CS410	elmeg CS410-U	elmeg IP-S290plus	elmeg IP-S400
Connection via S ₀ bus / U ₀ bus / Ethernet	• / - / -	- / • / -	• / - / -	• / - / -	- / • / -	- / - / •	- / - / •
Line access digit adjustable	•	•	•	•	•	•	•
Call waiting / extended / disconnectable (CW)	•	•	•	•	•	•	•
Refusing a call	•	•	•	•	•	•	•
Answering machine integrated	-	-	-	opt. Module	opt. Module	-	-
Call filter (positive or negative)	-	-	-	•	•	-	-
Caller list with date, time and name	10	10	30	30	30	10	30
Call forwarding (Call deflection / CD)	•	•	•	•	•	•	•
Number of MSN extension number	3	3	10	10	10	3	10
Display date / time	•	•	•	•	•	•	•
Audio-in / Audio-out sockets	-	-	-	•	•	-	-
Selection of the outgoing MSN extension number	•	•	•	•	•	•	•
Direct exchange line access	Δ / •	Δ / •	Δ / •	Δ / •	Δ / •	Δ / •	Δ / •
Carrier selection through programmable keys	•	•	•	•	•	•	•
Direct call (Baby call)	Δ	Δ	•	•	•	Δ	•
Display, alphanumeric (lines x characters)	2x 24	2x 24	7x 21 (illuminated)	7x 21 (illuminated)	7x 21 (illuminated)	2x 24	7x 21 (illuminated)
Menu language selection (D, GB, NL, F, DK, N, S, I, E, P, H, CZ, SL)	•	•	•	•	•	•	•
Three-party conference call (3 PTY)	•	•	•	•	•	•	•
Malicious call identification (MCID)	-	-	•	•	•	-	•
Hands-free calling	-	-	•	•	•	•	•
Charge display	•	•	•	•	•	•	•
Charge credit for each MSN extension number	• / •	• / •	• / •	• / •	• / •	• / •	• / •
Explicit call transfer (ECT)	•	•	•	•	•	•	•
Headset features / integrated headset jack	•	•	•	•	•	•	•
Headset (cordless, DSHG-interface) connection	-	•	-	•	•	•	•
Variable handset volume	•	•	•	•	•	•	•
ISDN data communication	-	-	-	•	•	-	-
Keypad functionality for use with PABX systems	•	•	•	•	•	•	•
Configuration over PBX / USB-interface	Δ / -	Δ / -	Δ / -	Δ / •	Δ / •	Δ / -	Δ / -
Open listening	•	•	•	•	•	•	•
Least cost routing*	Δ	Δ	Δ	Δ	Δ	Δ	Δ
Broker's call (Enquiry call) (HOLD)	•	•	•	•	•	•	•
Microphone mute with optical display	•	•	•	•	•	•	•
Emergency operation (point-to-multipoint and point-to-point access)	-	-	•	-	-	-	-
configuration: Password-protected	•	•	•	•	•	•	•
Power over Ethernet (PoE)	-	-	-	-	-	•	•
Programmable keys, 2 levels, 25-place	5	5	15	5	5	5	5
R key	•	•	•	•	•	•	•
Completion of call to busy subscriber (CCBS)	•	•	•	•	•	•	•
CLIP / COLP	• / •	• / •	• / •	• / •	• / •	• / •	• / •
CLIR / COLR	• / •	• / •	• / •	• / •	• / •	• / •	• / •
Acoust. and opt. call signaling for each MSN extension number	•	•	•	•	•	•	•
Download of additional melodies	-	-	•	•	•	-	•
Call forwarding fixed / busy / no response (CFU/CFB/CFNR)	•	•	•	•	•	•	•
Don't disturb (station guarding)	-	-	•	•	•	-	•
Software download over USB / Ethernet / S ₀	- / - / •	- / - / •	- / - / •	• / - / •	• / - / •	- / - / -	- / - / -
Special dial tone (VIP-dial tone)	•	•	•	•	•	•	•
Telephone directory (internal)	-	-	250 alphanum.	250 alphanum.	250 alphanum.	-	250 alphanum.
Tone dialing when connected	•	•	•	•	•	•	•
USB interface	-	-	-	•	•	-	-
User-to-User Signalling (UU51)	•	•	•	•	•	•	•
Supports Vanity numbers	•	•	•	•	•	•	•
VIP targets	10 alphanum.	10 alphanum.	10 alphanum.	10 alphanum.	10 alphanum.	10 alphanum.	10 alphanum.
Dialing from the PC (CTI over TAPI)	Δ	Δ	Δ	•	•	Δ	Δ
Dial control (restricted / unrestricted numbers)	Δ	Δ	•	•	•	Δ	•
Dialing preparation with correction possible	•	•	•	•	•	•	•
Redialing	5	5	20	20	20	5	20
Wake-up call management (one time / daily / weekly)	-	-	•	•	•	-	•
Dimensions in mm (W x H x D)	257 x 80 x 176	257 x 80 x 176	320 x 95 x 176	257 x 95 x 176	257 x 95 x 176	257 x 80 x 176	257 x 95 x 176
Color	black-blue/icegrey	black-blue/icegrey	black-blue/icegrey	black-blue/icegrey	black-blue/icegrey	black-blue	black-blue/icegrey
System functions with elmeg PABX systems*:							
System-internal alphanumeric telephone directory	•	•	•	•	•	•	•
Busy lamp (line keys / connection keys)	• / •	• / •	• / •	• / •	• / •	• / •	• / •
Boss / secretary function	-	-	•	•	•	-	•
Different acoustic ringing for external / internal calls	•	•	•	•	•	•	•
Send / receive announcement	• / •	• / •	• / •	• / •	• / •	• / •	• / •
Follow Me	-	-	•	•	•	-	•
Line keys for broker's calls (put up to 4 calls on hold)	•	•	•	•	•	•	•
Login key for team / per MSN	•	•	•	•	•	•	•
Macro functions	-	-	•	•	•	-	•
Send / receive SMS	•	•	•	•	•	•	•
Day/Night switchable call mode with LED support	•	•	•	•	•	•	•
Team line key	•	•	•	•	•	•	•
Voice mail function key	•	•	•	•	•	•	•
Intercom call function	-	-	•	•	•	-	•
Central charge acquisition	-	-	•	•	•	-	•
Hotel function: Check-in / Check-out, wake-up call	-	-	•	•	•	-	•

*) For connection to the PABX systems elmeg T444, elmeg T484 elmeg D@VOS-44.dsl, elmeg D@VOS-44.net, elmeg C48.net, elmeg C46xe, elmeg C46xe-rack, elmeg C48m/C88m and elmeg ICT. elmeg CS290, elmeg CS290-U and elmeg IP-S290 can be configured completely via the RS232 or USB interface of the PABX or the internal ISDN port and with the remote configuration and maintenance function; firmware version 5.4 or later
 **) Only with elmeg T444, elmeg T484, elmeg D@VOS-44.net, elmeg D@VOS-44.dsl, elmeg C48.net and elmeg ICT
 *) Availability subject to country-specific type
 Δ Only in connection with elmeg PABX systems

PERFORMANCE FEATURES ELMEG DECT400

	elmeg DECT handset 400-20	elmeg DECT handset 400-40
System features with menu navigation:		
Automatic Follow-me from system telephone:		
· activation by removal out of the charger	•	•
· deactivation by insertion into the charger	•	•
name display in silent mode (autom. Out of ICT)	•	•
Access to the central telephone book of the PBX	•	•
Access to the elmeg-Menu	•	•
Features with elmeg-PBXs:		
Call waiting / Call waiting protection	•	•
Day- / night switching	•	•
Follow Me	•	•
Automatic line access	•	•
CLIP	•	•
Intercom	•	•
(Hotline) Direct call	•	•
3-party conference	•	•
Call Pick up	•	•
Brokers call	•	•
Alarm call on/off switchable	•	•
Project numbers	•	•
Room monitoring	•	•
Call forwarding	•	•
Inquiry call	•	•
Completion of call	•	•
Switching contact	•	•
Call internal / external	•	•
Team	•	•
Door intercom	•	•
2-way intercom	•	•
Dial procedure (Tone / Pulse)	•	•
Call transfer	•	•
Central telephone book	•	•
Features DECT handset		
Alphanumeric keypad	•	•
CLIP	•	•
Automatic seamless handover	•	•
Automatic call accepting	•	•
Illuminated display (disengageable)	•	•
Weight	130 g	130 g
Graphic display, 3 lines plus symbols	•	•
Headset-jack	-	•
Variable handset volume	•	•
Open listening	-	•
Optical call signaling (LED)	•	•
R-key	•	•
Variable ringing melody and volume	9	9
IP 54 protection (dust and splashed water protection)	-	•
Silent Mode (no tones)	•	•
Max. talk time	16 Hours	16 Hours
Max. stand-by time	150 Hours	150 Hours
Microphone mute	•	•
Key lock (also automatic)	•	•
Telephone directory with name	65	65
Vibration alarm	-	•
Redialing	10	10



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