

**Gehrke**

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**System Description  
HGA-MULTICOM 3000**

**Status 2003-06-11**

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Our terminals and intercoms are in a process of regular further development. The system description is a documentation of their technical status at the time of print. We reserve the right to technical changes.

## **A The System MULTICOM 3000**

### **General System Information**

With the MULTICOM 3000 we have developed an internal communication system - or short: INTERCOM system - which fully does justice to the term „quality in communication“.

With the MULTICOM 3000, communication is not limited to the spoken word; the MULTICOM 3000 also transmits control commands, exchanges data, brings information.

The MULTICOM 3000 can easily follow your future needs for modern communication - the modular set-up facilitates additions, extensions, and upgrades any time.

You can get in touch with your business partners fast and directly and have both hands free while talking. You can talk freely in the room. With the MULTICOM 3000 you can radiopage persons, leave messages, activate all-calls or group-calls, start conference calls.

The spoken word is merely a part, in some branches only a small part of the communication. Thanks to digital data technology and the flexible use of interface boards, control and switching functions of the most varying kind can be carried out from the terminals of the intercom, e.g. the remote control of PA-systems, radio and video equipment, door openers, or gates. Of course you can put into reality your individual demands and wishes also here.

Display and keyboard allow a comfortable use of the MULTICOM 3000. Apart from the subscriber identification and the display of information, your communication requirements are additionally met by the display on the subscriber units by delivering data from sensors, instruments and machines.

You can determine the function of each terminal separately or control and monitor centrally the whole communication system via the master control.

But communication does not end here, either: the MULTICOM 3000 has interfaces with which you can connect to other systems without any problems. Due to that, the range of application of the MULTICOM 3000 is nearly unlimited.

The MULTICOM 3000 will also follow your future demands in the field of „quality in communication“ easily.

## General System Information

### Examples of Application

There is no „typical“ range of application for the MULTICOM 3000 because the system can be set up and arranged in a most flexible manner.

The MULTICOM 3000 is at the right place wherever qualified exchange of information is asked for.

The MULTICOM 3000 can be found in industrial enterprises and manufacturing companies, offices, administration buildings, surgeries, as well as in the service industries.

For highly sensitive areas such as clinics and police-stations we have developed special branch-oriented solutions that come up to the high safety requirements made in these fields.

In general, the offer ranges from units for offices, entrance and security areas over units, for the medical field, for external and industrial applications to units for areas where explosions could occur to interfaces to other systems and master control solutions.

### Door calls

are signalled by optical and acoustic means via the intercom. Door calls can be given different priorities and allocated to a certain unit or a group of units. The door-opening function can be released from any called unit. Furthermore there is the possibility of remote enquiries and call diversions to a group of units or mobile phones, e.g. if the gatehouse or reception desk is not occupied during night hours or the watchpersons are doing their rounds.

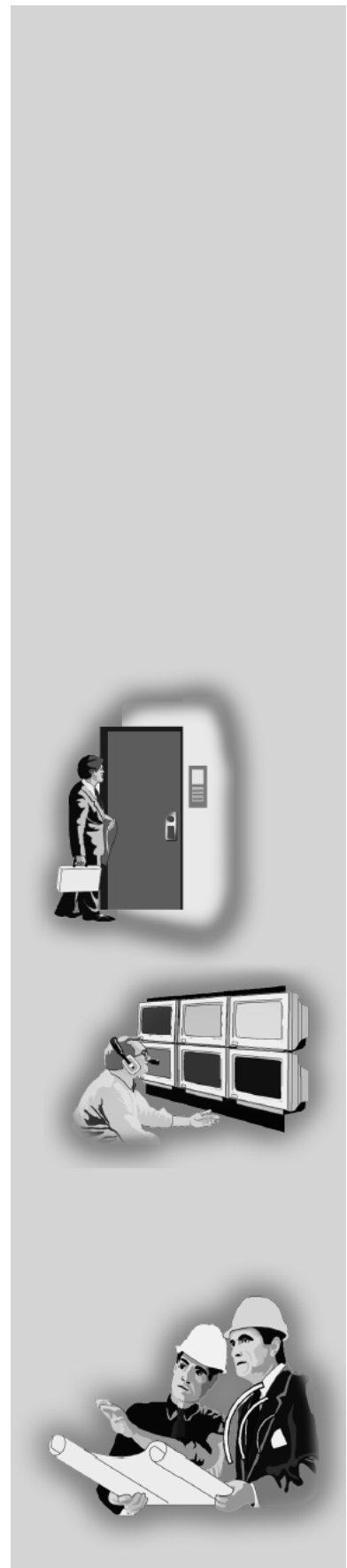
### Security system / door control

The receptionist sees on the display which door is being called - also if there is more than one entrance to the building. At the same time, a relay can switch on a video camera and monitor. The receptionist enters into voice contact and opens the door by pushing a key on the unit. A contact signals if the door is open or closed.

For larger building complexes we offer a graphical master station system to implement quite a number of tasks: Speaking, controlling, monitoring and video are grouped here at one screen surface.

### Remote enquiry of radio installations

Connection to the radio installation is set up via the radio interface in order to reach colleagues, for instance, who may also be outdoors, in their cars, etc. The radio installation can be operated from any authorised unit. This provides you with a multi-user radio installation in an easy way.





**Remote control of paging systems**

Via the paging interface, a connection to the paging system is set up in order to radiopage employees on the factory premises for example. Depending on the paging system used, a selective pager call with call tone, with a numeric display message, with speech and with talk-back is possible. The paging system can be operated from any authorised unit. This provides you with a multi-user paging system in an easy way.

**Remote control of PA-systems**

Via the PA-interface, the connection to the PA-system is set up. There is the possibility of contacting up to 64 PA-circuits selectively or jointly from any authorised unit, of activating break signals or alarm signals, among many other features. This provides you with a multi-user operation option of your PA-system.

**Lift control and emergency call**

For the installation in lift cages you have special sub-stations at your disposal. When a call is activated, the display of the receiving main station immediately shows from which lift, for instance, the emergency call is coming.

An electronic control of the emergency call units is possible. In the case of an incident, a relay assigned to the unit (fault detector contact) can be activated or a related display message can be transmitted.

Furthermore, emergency calls can be passed on to central supervisor terminals via a telephone dial interface.

**Bus extension for subscriber connections**

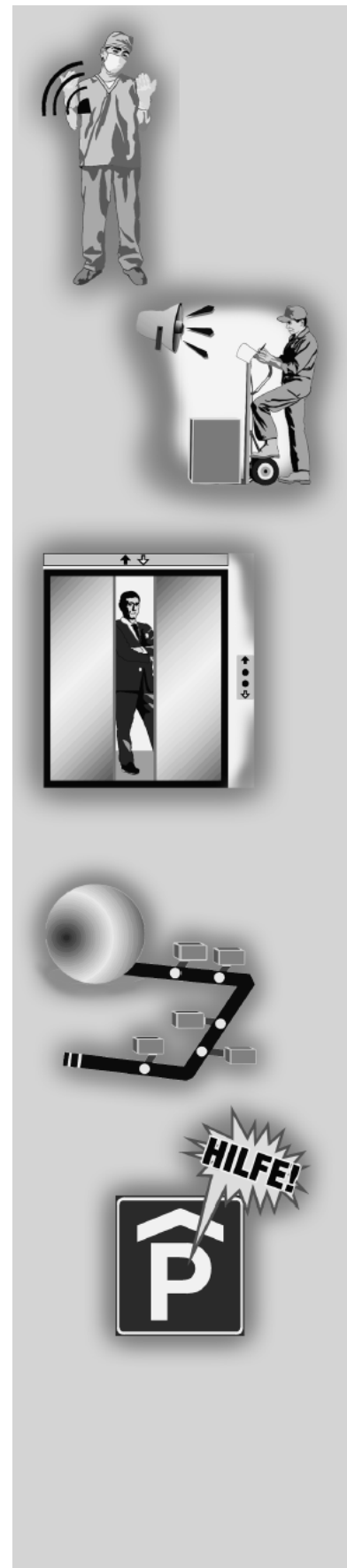
An inexpensive alternative if one speech channel suffices for a greater number of terminals, for instance in the case of sub-stations of master controls, lift emergency calls for several lifts, car park emergency calls, check-outs in supermarkets, cell communication in penal institutions, or connection of other buildings such as warehouses etc.

Instead of having one subscriber output per terminal, only a total of one subscriber connection is needed for the bus extension!

**Emergency call system**

For the use in car parks, e.g., special sub-stations for emergency calls are available. After the activation of an emergency call (simple one-time pressing of a key or acoustic switch), the display of the receiving terminal shows the name of the emergency call terminal. This facilitates the unequivocal identification of its location. An acknowledge allows that a speech connection is set up **immediately**.

An automatic link with video control is possible.



**Master control functions**

Wherever a large degree of transparency and the possibility of documentation is required, the central supervision and control by the MULTICOM 3000 is the right solution. Depending on your requirements a master control, a master keypad terminal or a computer assisted master station with or without a graphic surface can be used.

Typical areas of application are the industry, administration offices, old people's homes, hospitals, airports, parking areas, and nursing homes.

**Networking of intercom exchange via ISDN**

Re-organisation in the communication and security field is an important factor today to help reduce cost and modify former basic requirements. The Gehrke S0-interface supports ideas and concepts for such a re-organisation. It is used to network several Gehrke intercom exchanges via ISDN. With this terminal compound the user is offered quite new features:

- Extension of the terminal's functions „communication“, „control“, „monitoring“ to operating buildings or premises at different sites.
- Central processing of door calls, lift emergency call, etc.
- Remote monitoring of buildings (e.g. parking areas),
- Grouping of emergency, stand-by and night services.

The terminal links are protected efficiently from unauthorised access by third parties.

**MULTICOM in the police service**

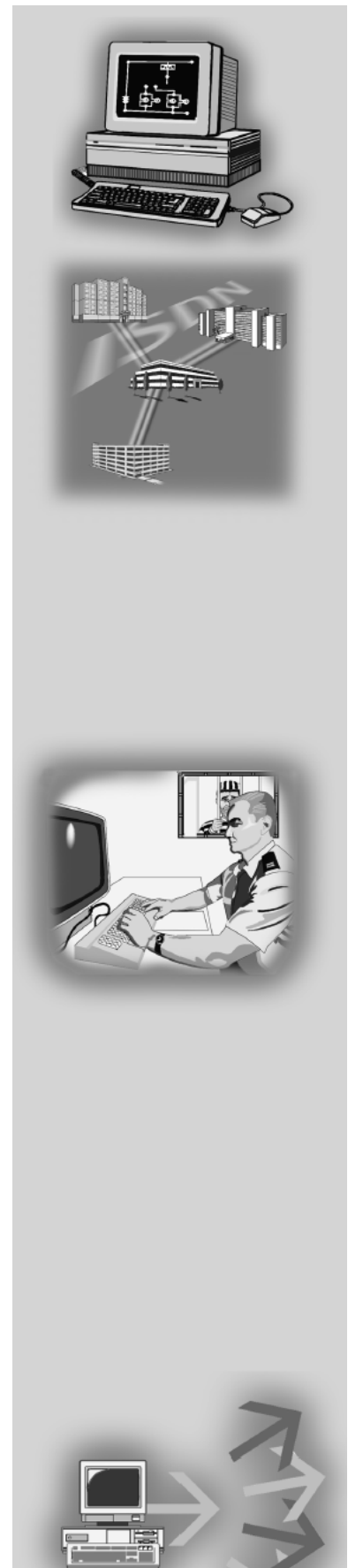
For the use in police stations (police headquarters, police inspection), HGA offers a package consisting of:

- detention cell intercom in combination with cell light call and time-controlled call barring
- emergency call with immediate speech connection in front of the cell area
- master control function at the radio desk, also with monitor available
- radio conferences with unlimited number of subscribers
- unlimited number of door calls as individual or group-calls
- sluice gate operation
- special functions for door calls:
  - + camera on, panning, zooming
  - + control of door opening function and light
  - + door and gate control, etc.
- house emergency calls by acoustic and optical means with display message
- PA-link for loudspeaker announcements

HGA will gladly send you more detailed information on request.

**Service support**

The MULTICOM 3000 has an interface for the connection of commercially available computers. A special software supports you in your programming, allows the storing of customer-specific programme files, and assists you in your fault diagnosis.



**System set-up**

The MULTICOM 3000 is set up in a modular way. It is characterised by the use of only a few types of modules in the master station. The small number of different modules offers a high degree of safety in the planning, assembly, and maintenance.

The intercom consists of the fully electronic, microprocessor controlled central unit in a compact housing or 19"-frame with six duplex links for four to 64 subscriber connections, the terminals with or without display, various system interfaces and a comprehensive programme of accessories as well as the stellate installation.

By means of cross-connections, up to eight central units and 480 subscribers can communicate with one another. All subscriber connections are made in four-wire technology, solderless and pluggable.

**Units** are divided into three types depending on their standard features.

- Main units:  
Main units have a display to show information, a full keyboard (ten numerical keys) for dialling any subscriber number and five function keys, with which a great number of special functions are carried out.
- Supervisor units:  
These are actually main units which, however, offer additional extensive opportunities of information processing, controlling, and protocolling. Depending on the requirement profile, graphic or DOS master controls as well as key master controls are available.
- Sub-stations:  
These have limited call possibilities (abbreviated or direct dialling to particular subscribers). As typical examples for sub-stations, door units and emergency call units can be named.

**System interfaces** allow the connection with other equipment or devices. They do not have any operational controls. Control is mostly carried out from the calling main unit.

**The programme of accessories** comprises additional microphones, loudspeakers, amplifiers, mains power supply parts, various assembly and installation material as well as service software.

**Standard Features**

The MULTICOM 3000 is a processor-controlled intercom system. It offers extensive features, which can be programmed in a customer specific way and are already part of the standard equipment in the basic programme.

MULTICOM master stations come with a basic programming. They are ready to operate immediately after being switched on. The features marked with (\*) have to be activated by programming.

The customer-specific programming can be carried out with the help of a display unit - **no** special programming device is necessary! On request, however, a programming editor which runs on all commercially available PCs can be delivered.

**General Features**

- Electronic line control, the signalling is effected either via a fault detector contact allocated to the faulty location or as display message. (\*)
- MULTICOM master stations have two sets of parameters, which can be switched manually or time-controlled; this means that for day and night operation, e.g., a different programming is possible. (\*)
- EURO ISDN S0-interface to network intercom exchanges via the public telephone network or via subscriber terminals
  - Individual calls, collective calls with answer-back, remote enquiries, conference, contact signalling and relay control are possible via the public telephone network
  - Connection set-up from and to the public telephone network, speech communication with commercially available terminals which are protected from unauthorised access by third parties
  - Transfer of calls between intercom exchanges without connection set-up and thus free of charge
  - Inter-compound connections by entering the subscriber number without pre- and post-selection
  - Transfer of emergency call to a central supervisor terminal with the possibility to speak to the calling unit (lift emergency call, parking area emergency call, etc.)
  - Transfer of door call, possibility to speak to the door and actuate the door opener
- Free calling number allocation from ten to 99 or from 100 to 999; for installations with up to nine subscribers, a one-digit number dialling is possible. (\*)
- Call-connect software
- Bus extension for subscriber outputs (\*)
- Master control function

**General Features** (continued)

- Display functions (numeric and alphanumeric):
  - subscriber identification
  - own number
  - display of contact number (\*)
  - display of call-back requests
  - display of call diversions
  - display of infocode
  - display of current time
- Infocode function with five memory locations per main unit and remote entry option
  - come-back time in case of absence
  - two independent dates
  - „Please do not disturb!“ etc.
- Time-out for calls (\*)
- Time-out for all-/group-calls (\*)
- Two programme channels for background music, etc.  
(without occupying any speech channels)

**Standard features SPEAKING**

- Duplex and simplex - everybody with everybody
- Any desired change between the operation modes simplex and duplex is possible and controllable by both subscribers.
- LED display of the direction of the call in simplex mode
- Camp on busy when calling an occupied unit with automatic through-switching when line is free
- Call with priority / separates ongoing connection, renewed set-up of call with warning tone, after completion of call the previous connection is again set up. (\*)
- Call-back request function with 64 call-back requests in memory per master station module; this function can be activated both by the caller and by the called party; display and LED.
- Remote enquiry of call-back requests
- All- and nine group-calls - without decade limitation - per master station module (\*)
- Selective exception from all-calls (adjustable at unit) (\*)
- Automatic answer to all-/group-calls
- Formation of areas and hierarchies (\*)
- Subscriber dialling
- Abbreviated dialling of numbers (\*)
- Target calls of sub-stations (\*)
- Door call functions:
  - programme where pushbuttons can be labelled (\*)
  - door calls with and without priority (\*)
  - door calls as individual or group-calls programmable (\*)
  - answering door calls and door-opening function from any authorised unit (\*)
  - door call diversion to a group of subscriber units possible
  - remote enquiry option
- Call repeats

**Standard features SPEAKING (continued)**

- Call forwarding
- Unlimited number of manager-secretary forwarding
- Follow me (remote entry of call diversions)
- Enquiry / switch-over with alternate option
- Eight conference calls (simplex) per MULTICOM master station with any desired number of subscribers:
  - open conferences (\*)
  - closed conferences (\*)
- Multiple protection against eavesdropping:
  - call barring by means of infocode entry
  - call barring by means of switching to private
  - permanently private (\*)
  - microphone switched off during conversation
  - mute switch (\*)
  - handset function / privacy during conversations
  - display-LED for ongoing call connections
  - reminder tone (interval)
- Different audible signals to characterise different operation modes:
  - call tone
  - busy tone
  - all-/group-call tone
  - door-call tone (\*)
  - contact tone (\*)
  - private tone
- Alarm- or interval-tone transmission to all units by means of external release of contact and external signal source (\*)

**Standard features CONTROLLING**

- PA connection with the possibility of contacting PA lines selectively or jointly (\*)
- Connection to radio with selective call option (\*)
- Connection to pocket pagers
  - call initiation automatic (\*)
  - call initiation manual (\*)
- BCD output unit (\*)
- Relay functions (far more than 1,000 relays per master station module are controllable):
  - manual relay switch for the duration of a touching of a key (RKA / RKC) (\*)
  - automatic relay switch for the duration of a call connection / door call (RKA / RKC) (\*)
  - impulse relays are activated by dispatch of call-back requests (RKA) (\*)
  - memory relays time-controlled (RKB) (\*)
  - self-hold relays (RKE) (\*)
- Relays can be allocated individually, as pairs or groups (four or 16 relays each) to a subscriber number.

**Standard features MONITORING**

- Per master station, 64 entrances can be monitored, the contacts can be programmed individually as openers (break contacts) or closers (make contacts) (\*)
- Types of contacts:
  - instantaneous contacts, display for the duration of release of contact (\*)
  - memory contacts are deleted by acknowledgement; the acknowledgement can automatically set up a speech connection (\*)
  - enquiry contacts, display after entry of the allocated calling number (\*)
- Contact displays (may be combined as required):
  - on the unit display, contact numbers are freely programmable and have a maximum of four digits (\*)
  - allocation of unit LEDs possible (\*)
  - support with contact tone (\*)
- BCD code reading unit (\*)

**(We reserve the right to make technical modifications!!)**

## **B Central units, communication computers and accessoires**

### **B1 General Information**

The system is based on state-of-the-art SMD manufacturing technology; it is fully electronic, microprocessor controlled and can be programmed in a customer-specific way. Already in the basic scope of supply, all features in correspondence with the description in Chapter A are available.

MULTICOM master stations come with a basic programming. They are ready to operate immediately after being switched on. The customer-specific programming can be carried out with a normal display terminal - **no** special programming device is needed!

The system has a modular set-up and is characterised by the use of only a few types of boards. The small number of different modules offers a high degree of safety in the planning, assembly, and maintenance.

All subscriber connections are made in four-wire technology, solderless and pluggable. All subscriber terminals, loud-speakers and system interfaces in accordance with the following description can be connected. Per subscriber connection, a **standard** 4 W AF power is available.

MULTICOM master stations offer the option of operating up to eight master stations (480 subscribers) in compounding operation. The data- and AF-connections between the individual modules are administrated by the tie line controller.

Two compounding systems are available:

- In the compounding network (N), MULTICOM master stations can be operated at a distance of up to 4000 m from the tie line controller.
- The expansion of tie line (E) is an inexpensive alternative. Here, however, the tie line computer and the master station must be installed in immediate proximity of one another. The maximum compounding operation line length is four metres.

The mixed operation of E- and N-compounding operations with more master stations in one system does not present any problems. It is not possible, however, to connect one N-interface card with one E-tie line board or vice versa. A mix-up is made impossible by the use of different plugging systems.

Programming of the tie line computer is not required.



**B2 Central units not prepared for connection  
of emergency power supply****Central unit not prepared for  
connection of emergency power supply****3432-ZS 6VK 0Tin**

for 32 subscribers, six speech channels, with features  
as previously described

**Scope of supply:**

- 19"-frame with 3 units of height including front panel
- Power supply unit 3432-NT/KR including power cable
- Processor card PRO 6 M with operating system SOFT 2
- Interface card IF D
- Six speech channels simplex

**Expansion:**

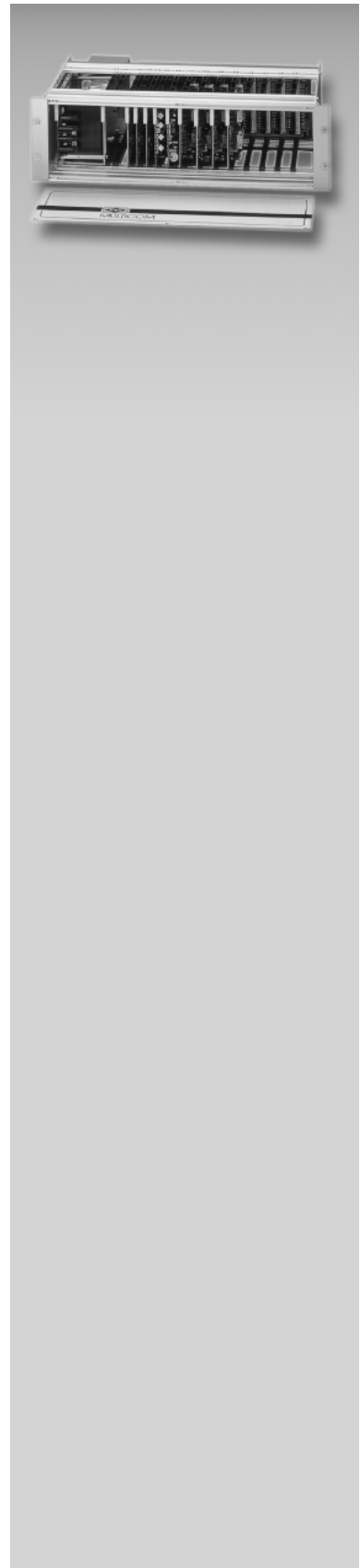
- Three channel cards 3402-VK with two duplex channels each
- Eight subscriber cards 3404-AT with four subscriber connections each
- Expansion to 64 subscribers with 3432-EWZ, in compounding operation up to 480 subscribers

**Measurements (height x width x depth):**

3 units of height x 19" x 320 mm

**Accessories:**

Compact housing 34-KG 4, swivel frame 34-SR



**Expansion master station not prepared for connection of emergency power supply****3432-EWZ 0 TIn**

for 32 subscribers, only in conjunction with basic master station 3432-Z

**Scope of supply:**

- 19"-frame with 3 units of height including front panel
- Power supply unit 3432-NT/KR including power cable
- Expansion cable (64-pins flat band)

**Expansion:**

- Eight subscriber cards 3404-AT with four subscriber connections each
- Expansion in compounding operation up to 480 subscribers

**Measurements (height x width x depth):**

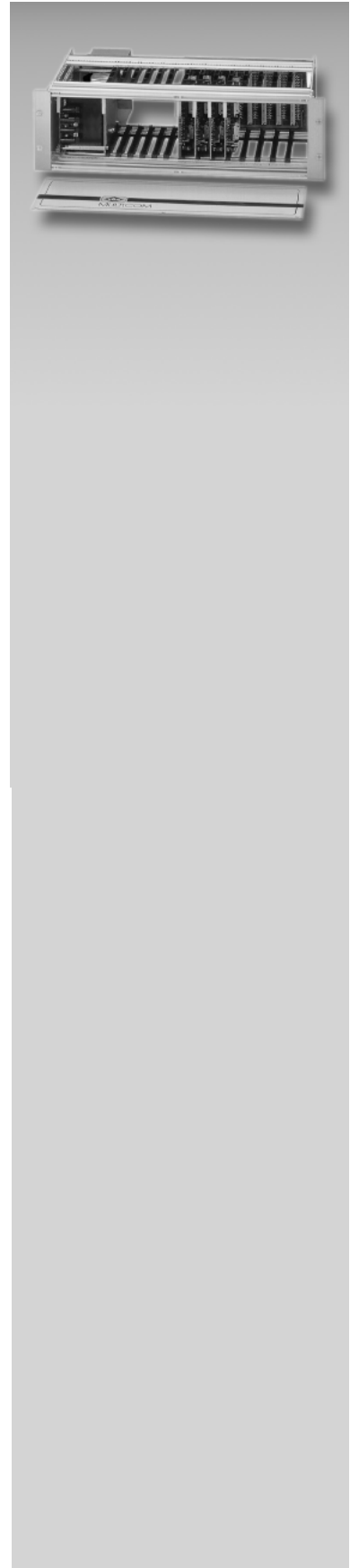
3 units of height x 19" x 320 mm

**Accessories:**

Compact housing 34-KG 7 (for 64 subscribers),  
swivel frame 34-SR

**Compound Expansion master station not prepared for connection of emergency power supply (without picture)****3432-VZE 0TIn 0KIE 0KIN**

see chapter B5 „Communication computers not prepared for connection of emergency power supply“



**B3 Central units prepared for connection  
of emergency power supply****Central unit prepared for connection of emergency power supply** **3432-ZS/NS 6VK 0TIn**

for 32 subscribers, six speech channels, with features  
as previously described

Scope of supply:

- 19"-frame with 3 units of height including front panel
- Power supply unit 3432-NT/KR/NS including power cable
- Processor card PRO 6 M with operating system SOFT 2
- Interface card IF D
- Six speech channels simplex
- Preparation for the connection of an emergency power supply + 12 V / 0 V / - 12 V type 34-NS 10 or 34-NS 24.

**Expansion:**

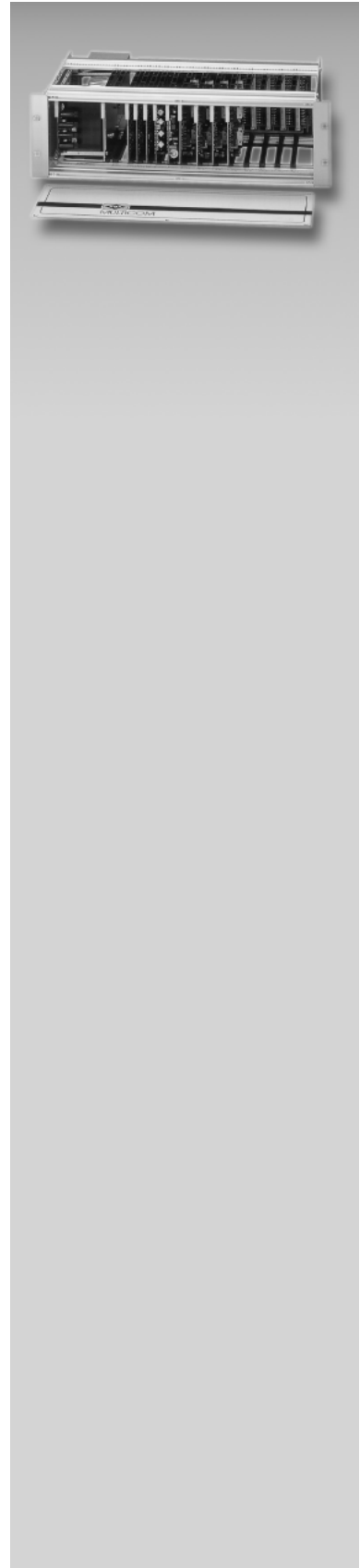
- Three channel cards 3402-VK with two duplex channels each
- Eight subscriber cards 3404-AT with four subscriber connections each
- Expansion to 64 subscribers with 3432-EWZ, in compounding operation up to 480 subscribers

**Measurements (height x width x depth):**

3 units of height x 19" x 320 mm

**Accessories:**

Compact housing 34-KG 4, swivel frame 34-SR



**Expansion master station prepared  
for connection of emergency power supply**  
for 32 subscribers, only in conjunction with basic  
master station 3432-Z

**3432-EWZ/NS 0TIn**

**Scope of supply:**

- 19"-frame with 3 units of height including front panel
- Power supply unit 3432-NT/KR/NS including power cable
- Expansion cable (64-pins flat band)
- Preparation for the connection of an emergency power supply + 12 V / 0 V / - 12 V type 34-NS 10 or 34-NS 24.

**Expansion:**

- Eight subscriber cards 3404-AT with four subscriber connections each
- Expansion in compounding operation up to 480 subscribers

**Measurements (height x width x depth):**

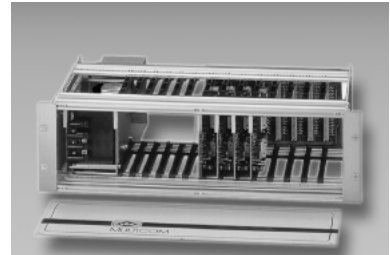
3 units of height x 19" x 320 mm

**Accessories:**

Compact housing 34-KG 7 (for 64 subscribers),  
swivel frame 34-SR

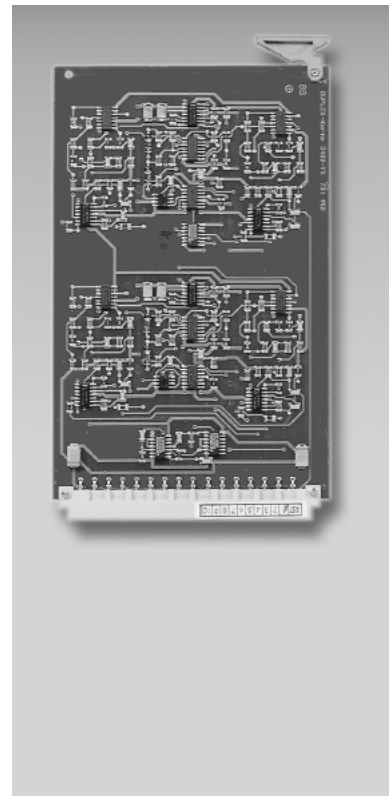
**Compound Expansion master station 3432-VZE/NS 0TIn 0KIE 0KIN  
prepared for connection of emergency power  
supply** (without picture)

see chapter B6 „Communication computers prepared  
for connection of emergency power supply“

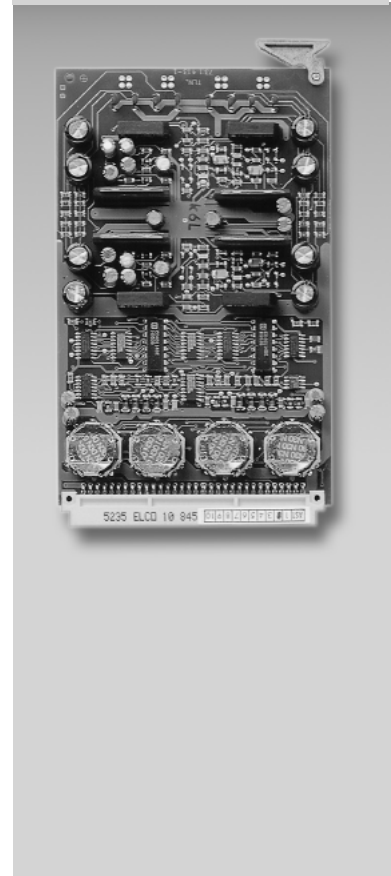


**B4 Accessories for central units****Speech channel cards**

- As plug-in cards in Europe card format for MULTICOM master stations
- For the expansion by two duplex channels each

**3402-VK****Subscriber card**

- As plug-in cards in Europe card format for MULTICOM master stations
- For the expansion by four subscriber connections each
- Output power per connection 4 W / 20 ohms
- Outputs protected against short circuit and overload

**3404-AT**

**Power supply unit****3432-NT/KR**

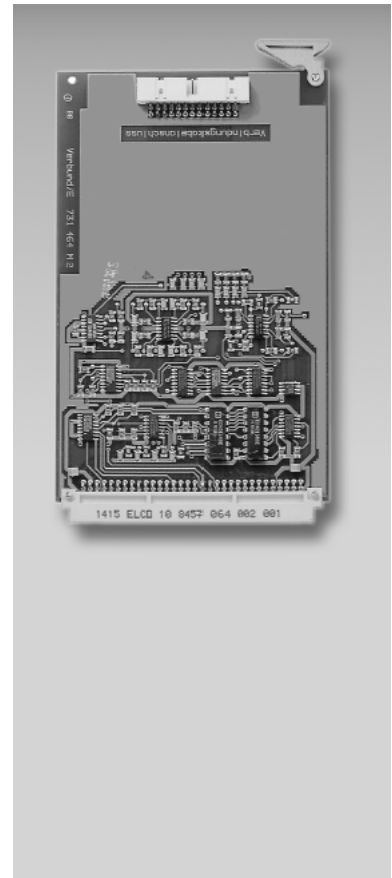
- Plug-in card for MULTICOM-master station, sufficient for 32 subscriber terminals and the power supply of the master station
- Technical specifications:
  - primary: 230V AC  
100 VA
  - secondary: + - 5V 0V DC stabilised  
+ - 18V 0V DC

**Power supply unit (without picture)****3432-NT/KR/NS**

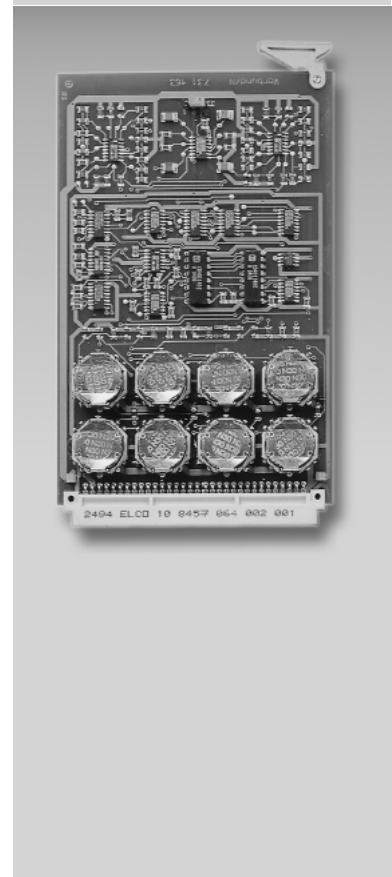
- Plug-in card for MULTICOM master station, sufficient for 32 subscriber terminals and the power supply of the master station, including emergency power interface
- Technical specifications:
  - primary: 230V AC  
150 VA
  - secondary: + - 5V 0V DC stabilised  
+ - 18V 0V DC
  - emergency power input: + - 12V 0V DC

**Tie line cards**

- As plug-in cards in Europe card format for MULTICOM master stations
- Is the data- and AF-interface to the tie line controller in the tie line expansion
- With four compounding speech channels
- Tie line installation by means of flat band cable, max. length 2.50 m

**3460-VBE****Tie line cards**

- As plug-in cards in Europe card format for MULTICOM master stations
- Is the data- and AF-interface to the tie line computer in the compounding network
- With four compounding speech channels
- Tie line installation with JY (St) Y 8 x 2 x 0.6 mm, maximum length 4000 m

**3460-VBN**

**Compact housing with 4 dimension units**

Completely closed housing in light-weight construction for the mounting of 19"-frame with 3 dimension units

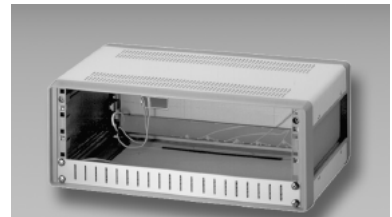
**Measurements (height x width x depth):**

210 x 520 x 320 mm

**Accessories:**

Swivel frame 34-SR

**34-KG 4**



**Compact housing with 7 dimension units**

Completely closed housing in light-weight construction for the mounting of 19"-frame with six dimension units

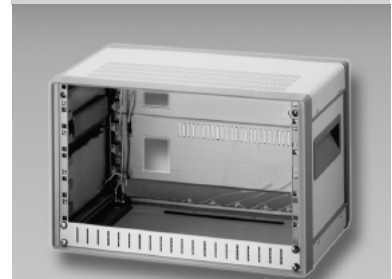
**Measurements (height x width x depth):**

345 x 520 x 320 mm

**Accessories:**

Swivel frame 34-SR

**34-KG 7**





**Swivel frame**

Wallmount for compact housing, swivelling to both sides

**Scope of supply:**

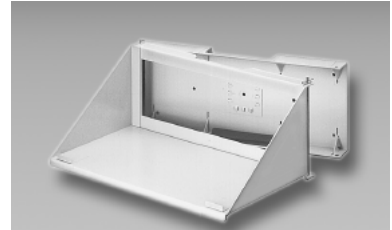
Wall bracket including swivel arm with mounting material and cable pull relief

**Measurements (height x width x depth):**

230 x 560 x 370 mm

**Weight:**

14 kg

**34-SR****Interface frame**

Mounting work for several interface cards in one intercom system is reduced considerably. Control, power supply - also for external components - is carried out via the distributor's back plate. Interface cards and back plate connections are pluggable.

**Range of supply:**

- 19"-frame with 3 dimension units including front panel
- Mains and connecting cable to the MULTICOM master station

**Expansion:**

- Maximum of six system interfaces (Europe card format)
- Power supply unit NT 8/5000 (for door openers)

**Measurements (height x width x depth):**

3 dimension units x 19" x 320 mm

**Accessories:**

Compact housing 34-KG 4, swivel frame 34-SR

**34-SSR 6**

**Day/night interface**

for installation in MULTICOM master stations

- Allows external switching between two sets of parameters that can be programmed in a customer-specific way
- Switching either manually or time-controlled

**34-TNI****Additional power supply frame****34-ZNTR-4/0**

for MULTICOM master stations with increased performance requirements. 20 % of the maximum number of available subscriber connections of a master station are, e.g., connected to 20 ohm loudspeakers:

**Range of supply:**

- 19"-frame with 3 dimension units including front panel
- Mains and connecting cable to the MULTICOM master station

**Expansion:**

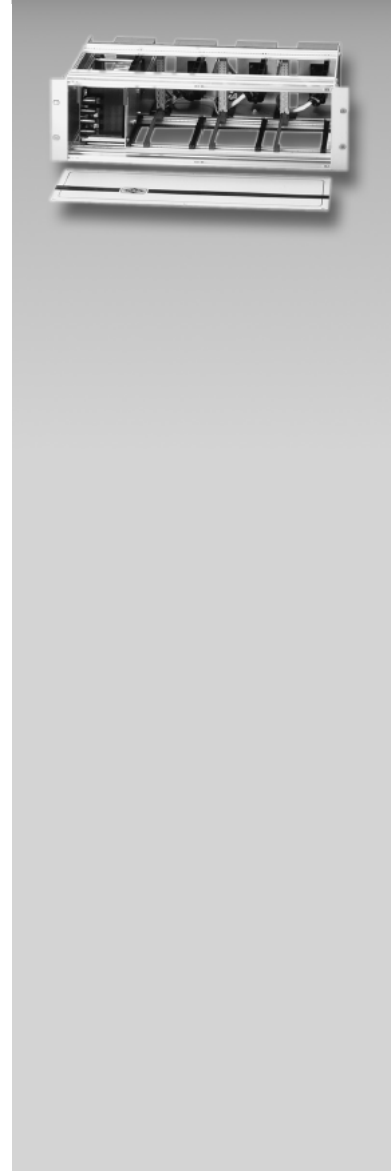
- Maximum of four power supply units 3432-NT/KR (100 VA each)  
In full expansion sufficient for 120 subscribers.

**Measurements (height x width x depth):**

3 dimension units x 19" x 320 mm

**Accessories:**

Compact housing 34-KG 4, swivel frame 34-SR

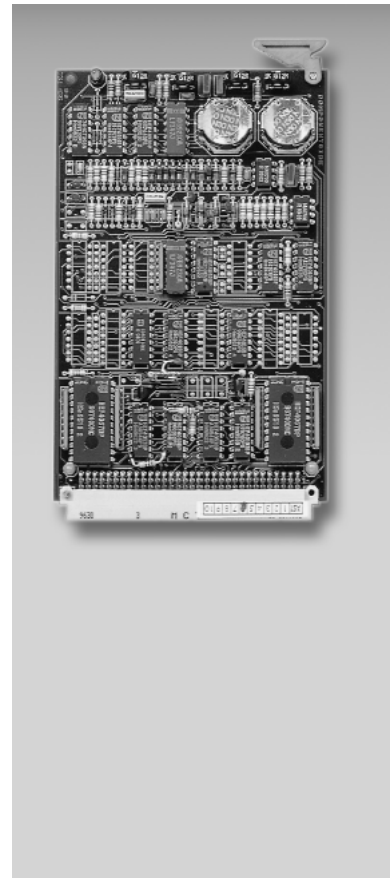
**Additional power supply frame****34-ZNTR/NS-4/0**

(without picture)

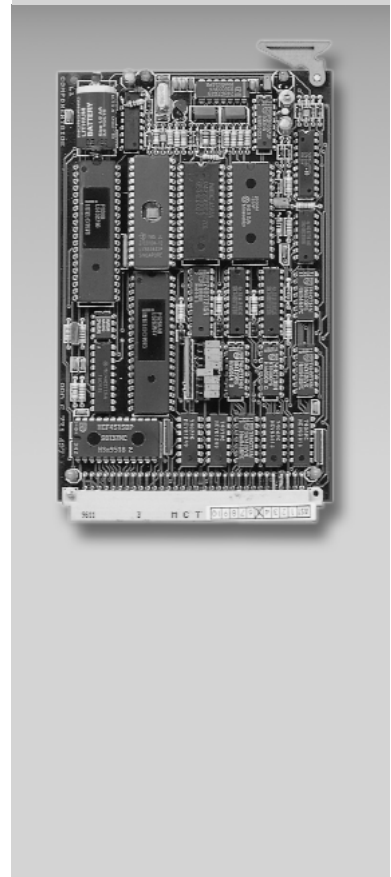
as type 34-ZNTR-4/0, but with connection possibility of an emergency power supply type 34-NS 10 or 34-NS 24.

**Interface cards**

- As plug-in cards in Europe card format for MULTICOM master stations
- For the control of the system periphery

**IF D****Processor cards**

- As plug-in cards in Europe card format for MULTICOM master stations
- With operating system software SOFT 2 and features as described in Chapter A
- Customer-specific programming possible with one display terminal or with PC programme PROS-PED 6

**PRO 6M**

**B5 Communication computers not prepared  
for connection of emergency power supply**

**Communication computer not 3432-KR8 0KIE 0KIN  
prepared for connection of emergency power supply**  
allow the compounding operation of up to eight  
MULTICOM master stations

**Scope of supply:**

- 19"-frame 3 units of height including front panel
- Power supply unit 3432-NT/KR including power cable
- Processor card KOMPRO 6 including tie line operating system

**Expansion:**

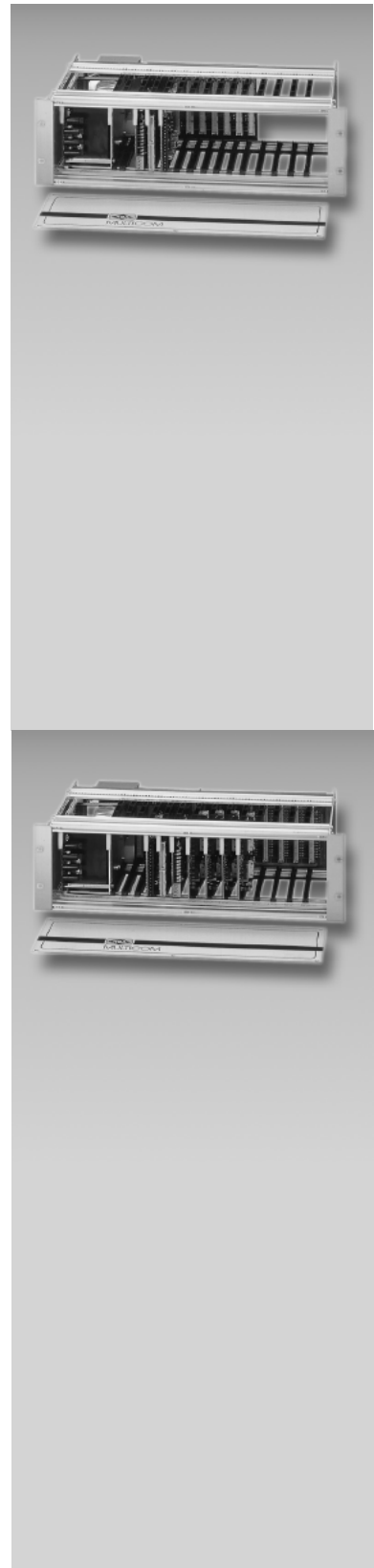
- Eight communication interface cards 3460-KIN for compounding operation of network or
- Four communication interface cards 3460-KIE for operation of tie line expansion

**Measurements (height x width x depth):**

3 units of height x 19" x 320 mm

**Accessories:**

Compact housing 34-KG 4, swivel frame 34-SR



**Operation of tie line expansion                      3432-VZE 0TIn 0KIE 0KIN**  
**master station not prepared for connection of**  
**emergency power supply**

for four communication interface cards and 28 subscribers,  
only in conjunction with basic master station 3432-Z

**Scope of supply:**

- 19"-frame 3 units of height including front panel
- Power supply unit 3432-NT/KR including power cable
- Processor card KOMPRO 6 including compounding operation system
- Expansion cable (64-pins flat band)

**Expansion:**

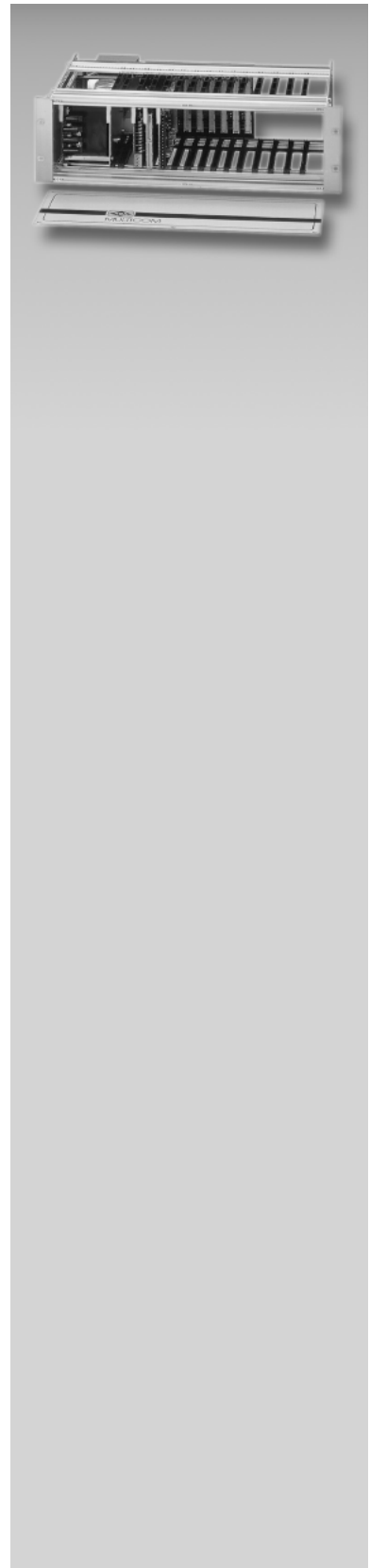
- Four communication interface cards 3460-KIN for compounding operation of network or
- Four communication interface cards 3460-KIE for operation of tie line expansion
- Seven subscriber cards 3404-AT with four subscriber connections each
- One tie line board 3460-VBN or 3460-VBE depending on compounding type
- Expansion in compounding operation up to 480 subscribers

**Measurements (height x width x depth):**

3 units of height x 19" x 320 mm

**Accessories:**

Compact housing 34-KG 4, swivel frame 34-SR



**B6 Communication computers prepared  
for connection of emergency power supply**

**Communication computer 3432-KR8/NS 0KIE 0KIN  
prepared for connection of emergency power supply**

allow the compounding operation of up to eight  
MULTICOM master stations

**Scope of supply:**

- 19"-frame 3 units of height including front panel
- Power supply unit 3432-NT/KR/NS including power cable
- Processor card KOMPRO 6 including tie line operating system
- Preparation for the connection of an emergency power supply + 12 V / 0 V / - 12 V type 34-NS 10 or 34-NS 24

**Expansion:**

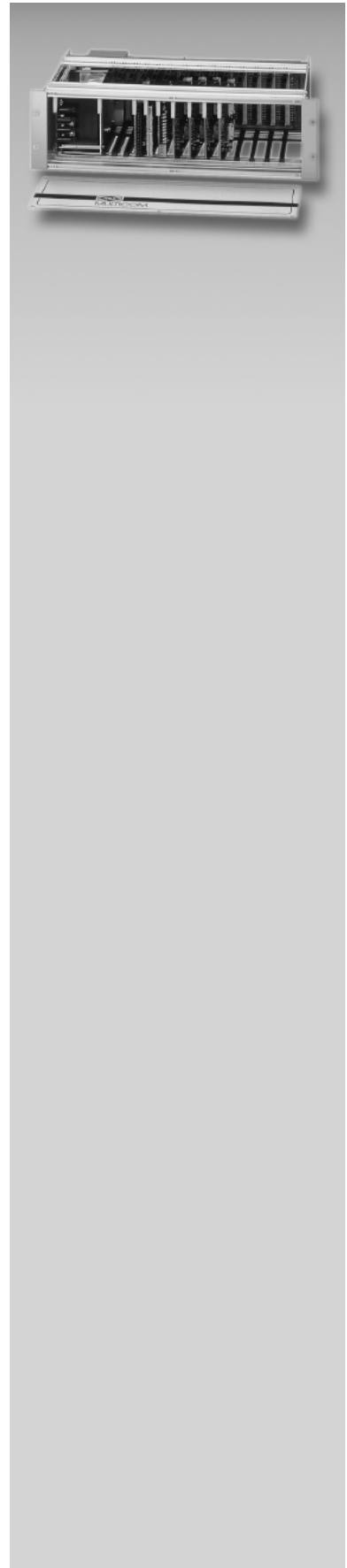
- Eight communication interface cards 3460-KIN for compounding operation of network or
- Four communication interface cards 3460-KIE for operation of tie line expansion

**Measurements (height x width x depth):**

3 units of height x 19" x 320 mm

**Accessories:**

Compact housing 34-KG 4, swivel frame 34-SR



**Operation of tie line expansion master station prepared for connection of emergency power supply** **3432-VZE/NS 0TIn 0KIE 0KIN**

for four communication interface cards and 28 subscribers, only in conjunction with basic master station 3432-Z

**Scope of supply:**

- 19"-frame 3 units of height including front panel
- Power supply unit 3432-NT/KR/NS including power cable
- Processor card KOMPRO 6 including compounding operation system
- Expansion cable (64-pins flat band)
- Preparation for the connection of an emergency power supply + 12 V / 0 V / - 12 V type 34-NS 10 or 34-NS 24.

**Expansion:**

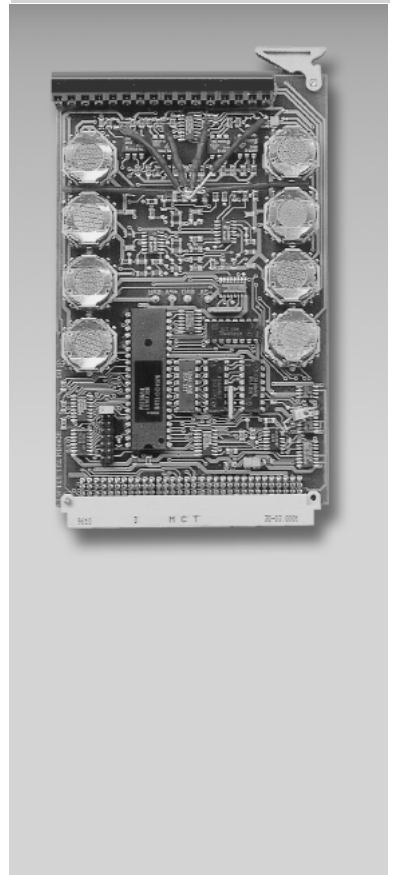
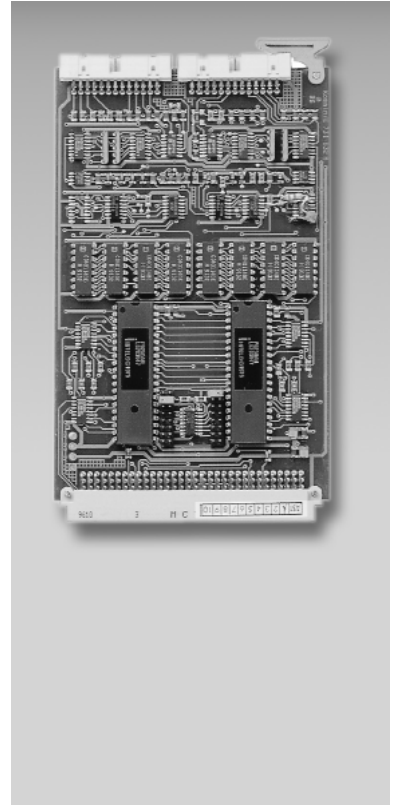
- Four communication interface cards 3460-KIN for compounding operation of network or
- Four communication interface cards 3460-KIE for operation of tie line expansion
- Seven subscriber cards 3404-AT with four subscriber connections each
- One tie line board 3460-VBN or 3460-VBE depending on compounding type
- Expansion in compounding operation up to 480 subscribers

**Measurements (height x width x depth):**

3 units of height x 19" x 320 mm

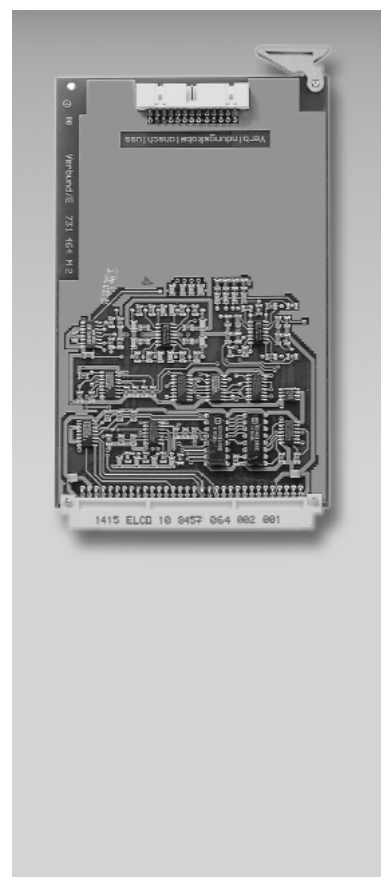
**Accessories:**

Compact housing 34-KG 4, swivel frame 34-SR



**B7 Accessories for communication computers****Communication computer interface**

- As plug-in cards in Europe card format for tie line controller
- Is the data- and AF-interface to two MULTICOM master stations in the expansion of tie line
- With 2 x 4 tie line speech channels
- Included in scope of supply there are two preformed flat band lines (2.50 metres) for the tie line installation

**3460-KIE****Communication computer interfaces**

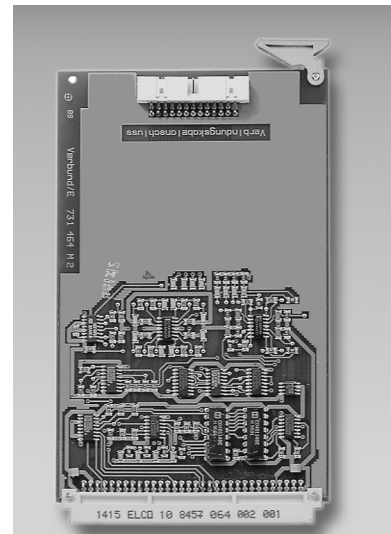
- As plug-in cards in Europe card format for tie line computers
- Is the data- and AF-interface to the MULTICOM master station in the compounding network
- With four tie line speech channels
- Tie line installation with JY (St) Y 8 x 2 x 0.6 mm, maximum length 4000 m

**3460-KIN**

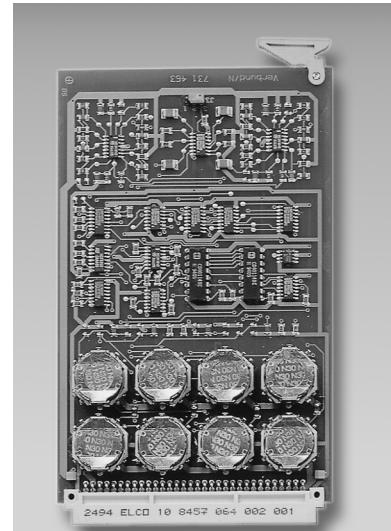


**Tie line cards**

- As plug-in cards in Europe card format for MULTICOM master stations
- Is the data- and AF-interface to the tie line controller in the tie line expansion
- With four compounding speech channels
- Tie line installation by means of flat band cable, max. length 2.50 m

**3460-VBE****Tie line cards**

- As plug-in cards in Europe card format for MULTICOM master stations
- Is the data- and AF-interface to the tie line computer in the compounding network
- With four compounding speech channels
- Tie line installation with JY (St) Y 8 x 2 x 0.6 mm, maximum length 4000 m

**3460-VBN**

## **C UPS and Auxiliary Power Supply**

### **General information**

Our mains power supply can nowadays be termed stable to a large extent. Nevertheless - and especially so in the summer season, due to thunderstorms - considerable mains voltage fluctuations occur.

Modern terminals with processor-control react quite sensitively to short drops of the mains voltage. A monitoring circuit prompts the processor to carry out an automatic reset cycle if a certain voltage level is not reached. In that period - until the system is booted up - there is a virtual system standstill.

For fields such as medical engineering, security and safety technology, at the police or at similar institutions where an intercom takes over tasks related to safety or control technology, a power failure or even only a short mains interruption must, by no means, lead to a system standstill. Therefore the use of a UPS / interrupt-free power supply or emergency power supply is indispensable in this case.

#### **Note:**

An emergency power supply supplies exclusively the master station itself, all terminals as well as the relay cards with electricity for a certain time.

If terminals such as door openers, master control PCs, bus controllers, additional amplifiers, etc. are used that have a mains connection of their own, a UPS installation is required.

**UPS 230 V AC****General features:**

- voltage transformer with sinusoidal output voltage
- automatic charger
- operation display
- mains and transformer fuse
- overload protection
- deep discharging protection
- gas-tight maintenance-free lead gel accumulators
- output voltage: 230 V 50 Hz +/- 5 %

**UPS (without picture)****34-USV 250/15 KG**

- **Rated power:** 250 VA 15 minutes
- **Bridging times:**
  - exchange 2632-Z: 45 min
  - exchange 3432-Z: 45 min
  - exchange 3464-Z: 25 min
- **Measurements (height x width x depth):**
  - 308 x 500 x 360 mm
- **Weight:** approx. 25 kg

**UPS (without picture)****34-USV 250/15 19"**

as model 34-USV 250/15 KG, but in 19" frame with 6 height level units

**UPS (without picture)****34-USV 250/30 KG**

- **Rated power:** 250 VA 30 minutes
- **Bridging times:**
  - exchange 2632-Z: 90 min
  - exchange 3432-Z: 90 min
  - exchange 3464-Z: 50 min
- **Measurements (height x width x depth):**
  - 308 x 500 x 360 mm
- **Weight:** approx. 35 kg

**UPS (without picture)****34-USV 250/30 19"**

as model 34-USV 250/30 KG, but in 19" frame with 6 height level units

**UPS (without picture)****34-USV 600/7 KG**

- **Rated power:** 600 VA 7 minutes
- **Bridging times:**
  - exchange 2632-Z: 50 min
  - exchange 3432-Z: 50 min
  - exchange 3464-Z: 30 min
  - exchange 34120-Z: 15 min
- **Measurements (height x width x depth):**
- 308 x 500 x 360 mm
- **Weight:** approx. 30 kg

**UPS (without picture)****34-USV 600/7 19"**

as model 34-USV 600/7 KG, but in 19" frame with  
6 height level units

**UPS (without picture)****34-USV 600/15 KG**

- **Rated power:** 600 VA 15 minutes
- **Bridging times:**
  - exchange 2632-Z: 100 min
  - exchange 3432-Z: 100 min
  - exchange 3464-Z: 60 min
  - exchange 34120-Z: 30 min
- **Measurements (height x width x depth):**
- 308 x 500 x 360 mm
- **Weight:** approx. 40 kg

**UPS (without picture)****34-USV 600/15 19"**

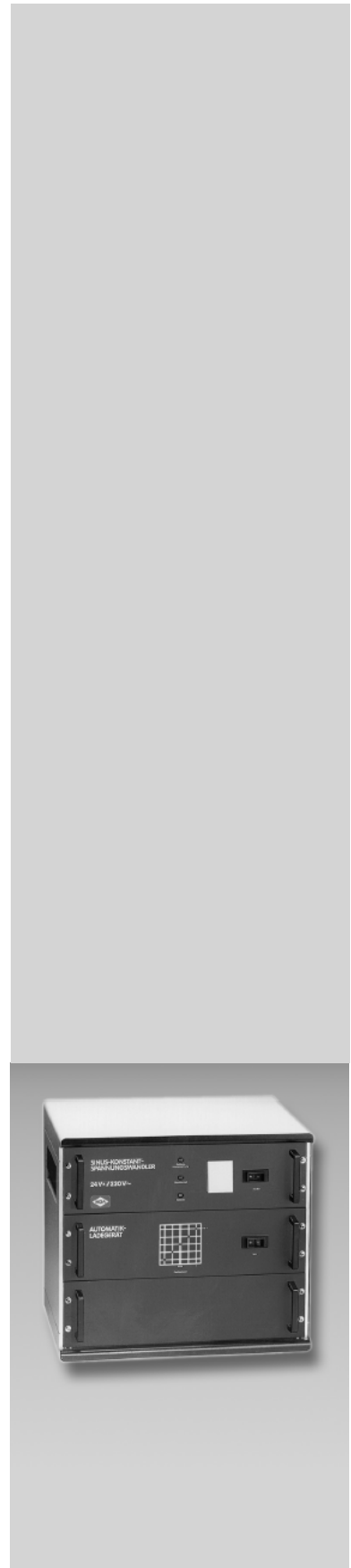
as model 34-USV 600/15 KG, but in 19" frame with  
6 height level units

**UPS****34-USV 1300/10 KG**

- **Rated power:** 1300 VA 10 minutes
- **Bridging times:**
  - exchange 2632-Z: 160 min
  - exchange 3432-Z: 160 min
  - exchange 3464-Z: 90 min
  - exchange 34120-Z: 45 min
- **Measurements (height x width x depth):**
- 442 x 500 x 360 mm
- **Weight:** approx. 55 kg

**UPS (without picture)****34-USV 600/15 19"**

as model 34-USV 1300/10 KG, but in 19" frame with  
9 height level units



**Emergency power supply  $\pm 12$  V DC****Standard features - general information:**

- Automatic charging set
- Deep discharging protection
- Display for mains/emergency power operation
- Separate fault detector contact
- Gas-proof, maintenance-free lead gel batteries
- Output voltage: +12V / 0V / -12V 6.3A

**Emergency power supply**

- **Nominal capacity:** 10 AH
- **Bridging times:**
  - 16 subscribers: 240 minutes
  - 32 subscribers: 150 minutes
  - 64 subscribers: 90 minutes
- **Measurements (height x width x depth):**
  - 3 dimension units x 19" x 300 mm
- **Weight:** 15 kg
- in 19" plug-in unit

**34-NS 10 19"**

**Emergency power supply** (without picture)  
like Model 34-NS 10 19" in compact housing

- **Measurements (height x width x depth):**
  - 175 x 500 x 360 mm

**34-NS 10 KG**

**Emergency power supply** (without picture)

- **Nominal capacity:** 24 AH
- **Bridging times:**
  - 32 subscribers: 360 minutes
  - 64 subscribers: 240 minutes
  - 120 subscribers: 120 minutes
- **Measurements (height x width x depth):**
  - 3 dimension units x 19" x 300 mm
- **Weight:** 25 kg
- in 19" plug-in unit

**34-NS 24 19"**

**Emergency power supply** (without picture)  
like Model 34-NS 24 19" in compact housing

- **Measurements (height x width x depth):**
  - 175 x 500 x 360 mm

**34-NS 214 KG**

## D Terminals

### D1 General Information

#### Master units

Master units are available in the following construction types:

<b>Desk-top and wall-mounted units:</b>	appealing terminal design in a beautiful housing made of shock-resistant plastic
<b>Industrial units:</b>	in especially robust construction with different safety classes (IP 54 - Ex)
<b>Flush-mount units:</b>	as flush-mount desk-top or wall-terminals with aluminium front panel; terminals also available in customised colours

#### Standard features:

- **Display**  
for the monitoring of the operation and for displaying information in clear text with 16-digit alphanumeric display and electronic table of contents or with four-digit numeric display
  - identification of calling partner
  - who wants to be called back
  - which door bell is rung
  - time
  - own unit number, and many other features
- **Standard keyboard**  
(ten numeric keys for dialling subscribers and five function keys)  
While a call connection is on, all keys can be used for programmable special functions.
- **Optical signalling by means of LEDs**
  - speech channel open / occupied
  - unit microphone active / inactive
  - call barring or muting active / inactive
  - call-back request stored
- **Acoustic methods of signalling**
  - when the conversation has started
  - when busy
  - for door-call
  - for all-call
  - for active call barring (private)
- **Sensitive electret microphone**  
suitable also for talking back from a distance of several metres
- **Loudspeakers with high efficiency**  
Due to the special acoustic conditions in the industrial area, the loudspeakers are partly offered as accessories for industrial units.
- **Volume control**  
controllable either from the front with automatic adjustment of the microphone sensitivity or for terminals with a higher safety class via a three-position control integrated in the terminal

**Substations**

Substations are available in the following construction types:

<b>Desk-top and wall-mounted units:</b>	of shock-resistant white plastic with disinfectant-proof plastic foil user surface; can be used wherever a humid or aggressive atmosphere does not allow the operation of normal units
<b>Industrial units:</b>	in robust aluminium die-cast housing as surface-mounted wall-units in signal colour
<b>Flush-mount units:</b>	as flush-mount desk-top or wall-units with aluminium front panel and foil (membrane) keyboard
<b>Rear-mount units:</b>	for customer <ul style="list-style-type: none"><li>- lift control panels</li><li>- panels with call buttons</li><li>- Bender membrane panels of type series TM-... and TF-...</li></ul>
<b>Door units:</b>	as flush-mount or surface-mounted wallunits or as flush-mount units integrated behind the wall for chime panels

**Standard features:**

- **Different calling options**
  - abbreviated dialling (also for group- and all-call)
  - call queuing by means of call-back request for master control applications
  - call queuing by means of priority call-back request for door-calls
  - call queuing for a group of units
  - emergency calls
- **Different numbers of call and function keys**
- **Optical signalling by means of LEDs depending on terminal**
  - speech channel open / occupied
  - unit microphone active
  - call acknowledgement
- **Acoustic methods of signalling**
  - when the conversation has started
  - when busy
  - for all-call
- **Sensitive electret microphone**  
suitable for talking back from a distance of several metres
- **Loudspeakers**  
with high efficiency

**D2 Desktop and wall-mount Terminals****Master unit****303****Application:**

As desktop or, with wall-mounting bracket, as wall-mount solution with clear text display, standard version with handset function for privacy during conversations

**Standard features:**

- Alphanumeric display, 16 digits
- Electronic table of contents with 108 lines
- Two LEDs
- Loudspeaker 0.5 W, electret microphone
- Three-position volume control
- 15 keys
- All keys can be assigned programmable special functions
- Colours: white (ws), grey (gr), anthracite (az)

**Measurements (height x width x depth):**

26 to 74 x 93 x 230 mm

**Accessories:**

Wall bracket, connection cable 2.5 m with Western- or TAE-connector

**Master unit****303-PF****Application:**

As desktop or, with wall-mounting bracket, as wall-mount solution with clear text display, standard version with handset function for privacy during conversations

**Standard features:**

- Alphanumeric display, 16 digits
- Electronic table of contents with 108 lines
- Two LEDs
- Loudspeaker 0.5 W, electret microphone
- Three-position volume control
- 15 keys
- All keys can be assigned programmable special functions
- Colours: white (ws), grey (gr), anthracite (az)
- Swanneck microphone SH 200 (Length 200mm)
- with directional characteristic
- optional swanneck microphone SH 300 (Length 300mm)

**Measurements (height x width x depth):**

- 26 to 74 x 93 x 230 mm

**Accessories:**

Wall bracket, connection cable 2.5 m with Western- or TAE-connector



**Courtroom unit**

In attractively designed desktop housing with one address or call button

**Features:**

- Housing colour grey, powder-coated
- with 300 mm swan-neck microphone
- Address button providing mechanical protection against accidental activation (witness call only remains active until button is released.)
- 2.5 connecting cable with Western plug RJ 45-4
- Traffic-light style red/green LED as standby indicator

**Measurements (height x width x depth) without swan-neck microphone:**

195 x 162 x 50/15 mm

**308-R/1****Courtroom unit**

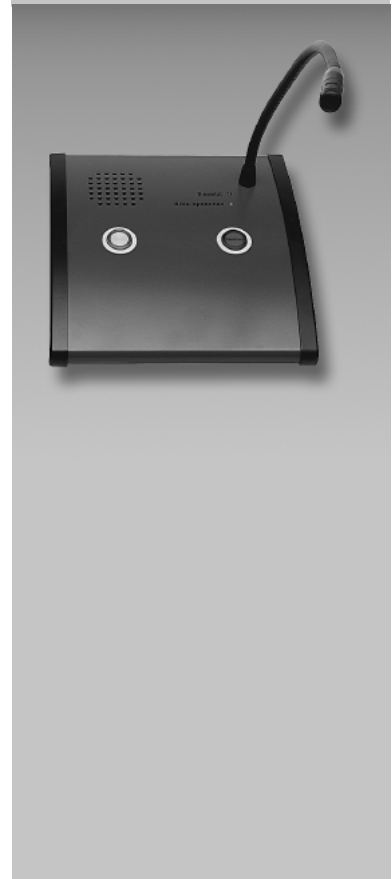
In attractively designed desktop housing with one address or call button and one illuminated control button

**Features:**

- Housing colour grey, powder-coated
- with 300 mm swan-neck microphone
- Address button providing mechanical protection against accidental activation (witness call only remains active until button is released.)
- one illuminated engaging / non-engaging control button for parallel display
- 2.5 connecting cable with 25-pin male SUB/D connector
- Traffic-light style red/green LED as standby indicator

**Measurements (height x width x depth) without swan-neck microphone:**

195 x 162 x 50/15 mm

**308-R/2**

**Courtroom unit**

In attractively designed desktop housing with one address or call button and three illuminated control buttons

**Features:**

- Housing colour grey, powder-coated
- with 300 mm swan-neck microphone
- Address button providing mechanical protection against accidental activation (witness call only remains active until button is released.)
- three illuminated engaging / nonengaging control buttons for parallel display of status options (public, „non-public“ and „courtroom full“)
- 2.5 connecting cable with 25-pin male SUB/D connector
- Traffic-light style red/green LED as standby indicator

**Measurements (height x width x depth) without swan-neck microphone:**

195 x 162 x 50/15 mm

308-R/3

**Courtroom unit**

In attractively designed desktop housing with one address or call button and two illuminated control buttons

**Features:**

- Housing colour grey, powder-coated
- with 300 mm swan-neck microphone
- Address button providing mechanical protection against accidental activation (witness call only remains active until button is released.)
- three illuminated engaging / nonengaging control buttons for parallel display of status options (public, „non-public“ and „courtroom full“)
- 2.5 connecting cable with 25-pin male SUB/D connector
- Traffic-light style red/green LED as standby indicator

**Measurements (height x width x depth) without swan-neck microphone:**

195 x 162 x 50/15 mm

308-R/4



**Apartment unit****308-WS****Application:**

As wall surface-mounted unit in apartment and office rooms. Call signalling is released by a call-back request and/or a priority call-back request. As long as the call exists, a buzzer is switched on twice for a short time every 6.4 seconds alternately.

**Equipment:**

- handset
- support for wall mounting with troughs for receiver and cradle switch
- answering call key (can be used as short dial key [1] for programming substations)
- door opening key to control a type A relay
- connection setup/separation by lifting/hanging up the receiver
- receiver volume and microphone sensitivity adjustable at potentiometer at PCB
- buzzer for call signalling (sound pressure level: approx. 75 dB at a distance of 5 m)
- colour: white

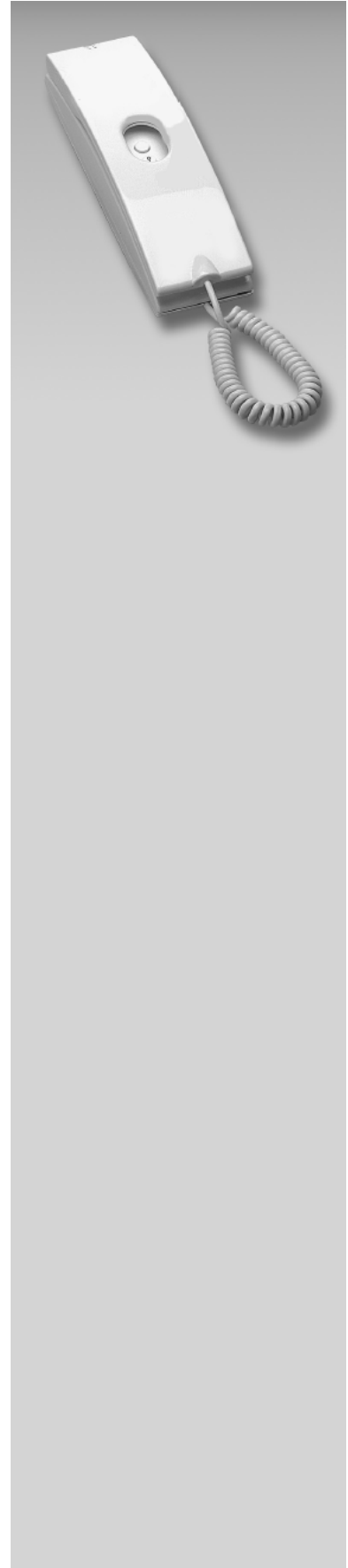
**Measurements:**

Height: 222 mm  
Width: 64 mm  
Depth: 52 mm (incl. receiver)

**Apartment unit****Application:**

As type 308-WS, but - instead of buzzer - here with relay contact for call signalling, e.g. for external gong. The relay contact of the apartment unit can be loaded with the following maximum values:

Switching capacity: max. 15 W  
Switching voltage: max. 200 V DC  
Switching current: max. 1.0 A  
Contact resistance: approx. 150 mohm



**Video apartment unit****Application:**

As wall surface-mounted unit in apartment and office rooms. Call signalling is released by a call-back request and/or a priority call-back request. As long as the call exists, a buzzer is switched on twice for a short time every 6.4 seconds alternately. For the call and/or talk period, the monitor is activated by an internal relay.

**308-WS/MON****Equipment:**

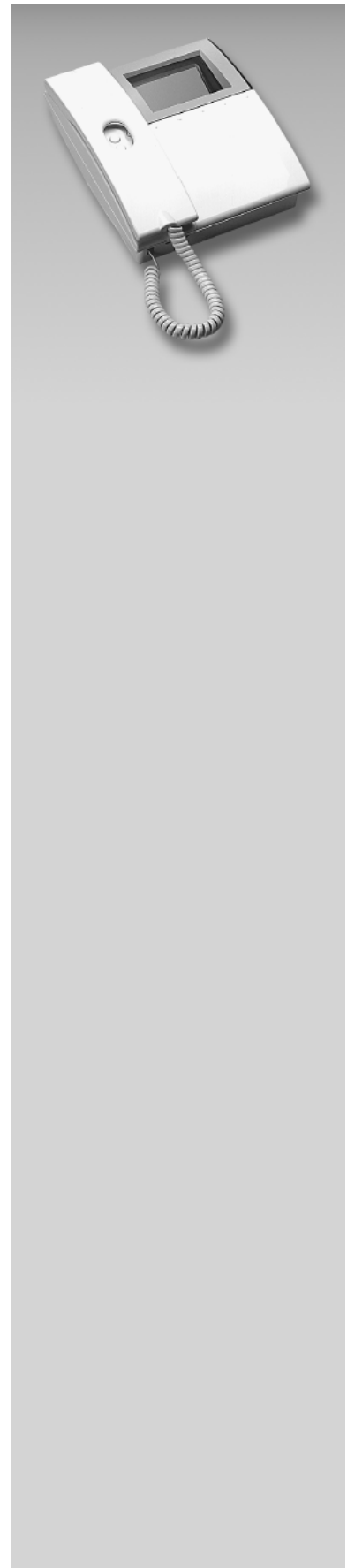
- B/W monitor with CCIR standard picture format
  - picture tube 4" diagonal, flat, mirror-reversed
  - resolution > 500 lines
  - video input 1 Vpp at 75 Ohm
  - power supply 10 - 12 V DC, max. 300 mA
  - brightness and contrast can be set at potentiometer at PCB
  - connection: RG 59
- Handset
  - with receiver troughs and cradle switch
  - answering call key (can be used as short dial key [1] for programming substations)
  - door opening key to control a type A relay
  - connection setup/separation by lifting/hanging up the receiver
  - receiver volume and microphone sensitivity adjustable at potentiometer at PCB
  - buzzer for call signalling (sound pressure level: approx. 75 dB at a distance of 5 m)
- colour: white

**Measurements:**

Height: 222 mm  
Width: 195 mm  
Depth: 82 mm (incl. receiver)

**Accessories:**

WS/MON-TS desk set for furniture, and NT 12/1000 power pack

**Video apartment unit****308-WSE/MON****Application:**

As type 308-WS/MON, but - instead of buzzer - here with relay contact for call signalling, e.g. for external gong. The relay contact of the apartment unit can be loaded with the following maximum values:

Switching capacity: max. 15 W  
Switching voltage: max. 200 V DC  
Switching current: max. 1.0 A  
Contact resistance: approx. 150 mohm

**Substation passive****309-LR****Application:**

for talking back from store-rooms or similar places

**Standard features:**

- Plastic housing with screwed connection with steel conduit thread for connection- and loudspeaker-cables
- Electret microphone
- Connection option for loudspeaker
- Volume control in unit
- Safety Class (IP 54)

**Measurements (height x width x depth):**

150 x 120 x 55 mm (height incl. PG screwed joint)

**Accessories:**

HGA loudspeaker-programme

**Substation passive****309-LRM8****Application:**

for talking back from big halls or store-rooms

**Standard features:**

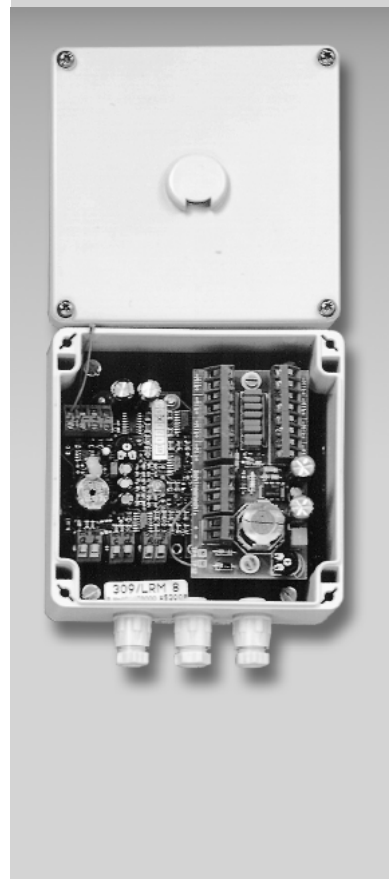
- Plastic housing with screwed connection with steel conduit thread for connection-, microphone- and loudspeaker-cables
- Connection option for eight microphone boxes (line lengths of up to 1000 metres possible)
- Connection option for loudspeaker
- Volume control in unit
- Safety Class (IP 54)

**Measurements (height x width x depth):**

150 x 120 x 55 mm (height incl. PG screwed joint)

**Accessories:**

Microphone box MIK-B2A, HGA loudspeaker-programme



**Master unit with membrane keyboard****313-A****Application:**

as desk-top or wall-mount unit with clear text display for applications in the medical field, or in a dusty environment

**Standard features:**

- Alphanumeric display, 16 digits
- Electronic table of contents with 108 lines
- Two LEDs
- Loudspeaker 2 W, electret microphone
- Three-position volume control
- 15 keys (plastic foil keyboard)
- All keys can be assigned programmable special functions
- Colour: white (ws)

**Measurements (height x width x depth):**

30 to 65 x 122 x 248 mm (mounting depth without PG 4: 40 mm)

**Accessories:**

Connection cable 2.5 m with Western- or TAE-connector (for desk-top unit)

**Substation with membrane keyboard****318-1A****Application:**

as desk-top or wall-mount unit for applications in the medical field, or in a dusty environment

**Standard features:**

- Plastic foil keyboard
  - one target call key (which can be labelled in a customer-specific way)
  - function keys for answering calls, switching to simplex operation and disconnection
- Loudspeaker 2 W, electret microphone
- Three-position volume control
- Two LEDs
- Colour: white (ws)

**Measurements (height x width x depth):**

30 to 65 x 122 x 248 mm (mounting depth without PG 4: 40 mm)

**Accessories:**

Connection cable 2.5 m with Western- or TAE-connector (for desk-top unit)



**D3 Industrial Terminals****Heavy industrial master unit**

without built-in loudspeaker (for loudspeakers see accessories)

**305-S****Application:**

as wall-mount unit in the industrial area

**Standard features:**

- Aluminium die-cast housing
- Four display lamps
- Electret microphone; microphone sensitivity can be set
- Volume control in unit
- 15 keys (industrial design)
- All keys can be assigned programmable special functions
- Housing colour signal-orange, customised colours on request
- Screwed connection with steel conduit thread for connection- and loudspeaker-cable
- Safety Class (IP 65)

**Measurements (height x width x depth):**

380 x 180 x 90 to 140 mm (height incl. PG screw joint)

**Accessories:** Loudspeakers DL 6-20bi, DL 10-bi, AL 10bi, noise-cancelling close-talking microphone NM

**Industrial unit, explosion-protected**

without built-in loudspeaker (for loudspeakers see accessories)

**306-Ex****Application:**

Unit with high built-in safety for applications on factory premises which are especially in danger of explosion due to gases or other inflammable substances.

**Standard features:**

- Aluminium die-cast housing, for wall mounting, colour: grey
- Four-digit LCD-display
- Display lamp
- Electret microphone
- Volume control in unit
- 15 keys
- All keys can be assigned programmable special functions
- Specification:
  - PTB-Nr.: Ex-84/1153
  - Explosion Protection Cl.: EEx de [ia] II B T 6
  - Safety Class: IP 65

**Measurements (height x width x depth):**

440 x 340 x 145 mm

**Accessories:** Loudspeaker HS-15-Ex

**Industrial unit, expl.-protected (without picture)**

like Model 306-Ex, but without display

**305-Ex**



**Industrial substation / Emergency call unit****309-1****Application:**

as wall-mount unit for applications in the industrial field, in car-parks, in the cell area of police-stations, etc.

**Standard features:**

- Aluminium die-cast housing
- Robust target- / emergency call key
- Phillips-type cover screws
- Loudspeaker 3 W
- Electret microphone, microphone sensitivity can be set
- Volume control in unit
- Housing colour signal-orange
- Screwed connection with steel conduit thread for connection cable
- Safety Class (IP 34)

**Measurements (height x width x depth):**

250 x 120 x 80 mm (height incl. PG screw joint)

**Accessories:**

Housing in customised colours on request. Conversion kit for attaching cover US-2L/M6 with 4 x M6 non-standard 2-slot safety screws. Corresponding special screwdriver SD-2L/M6.

**Industrial master unit****316**

without built-in loudspeaker (for loudspeakers see accessories)

**Application:**

as wall-mount unit in the industrial area

**Standard features:**

- Shock-resistant plastic housing
- Four-digit LCD-display
- Four LEDs
- Electret microphone, microphone sensitivity can be set
- Three-position volume control (in unit)
- 15 keys (plastic foil keyboard)
- All keys can be assigned programmable special functions
- Housing colour anthracite, front panel signal-orange
- Safety Class (IP 65)

**Measurements (height x width x depth):**

310 x 135 x 85 mm height incl. pG screw joint)

**Accessories:**

Loudspeakers IHL, DL 6-20bi, DL 10-20bi, noise-cancelling close-talking microphone NM

**Industrial unit (without picture)****315**

like Model 316, but without display



**Industrial substation** with built-in loudspeaker**319-3****Application:**

as wall-mount unit in the industrial area

**Standard features:**

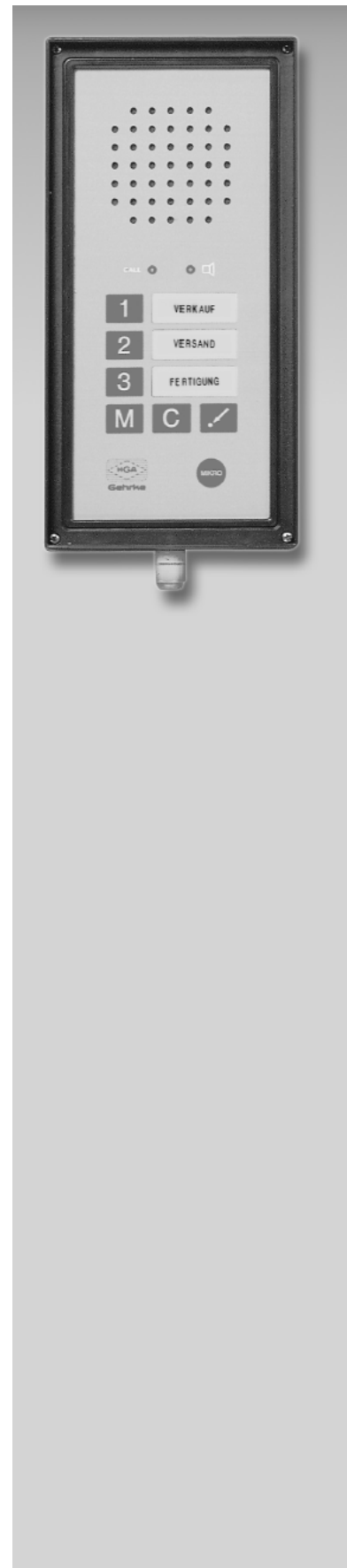
- Shock-resistant plastic housing
- Plastic foil keyboard:
  - three target call keys (that can be labelled in a customer-specific way)
  - function keys for switching to simplex operation, answering all-calls and disconnection
- Loudspeaker 3 W, electret microphone
- Volume control in unit
- Microphone sensitivity can be set
- Two LEDs
- Housing colour anthracite, front panel signal-orange
- Safety Class (IP 34)

**Measurements (height x width x depth):**

310 x 135 x 85 mm (height incl. pG screw joint)

**Accessories:**

noise-cancelling close-talking microphone NM



**D4 Flush-mount terminals****Flush-mount unit****303-E****Application:**

- Table mounting (can also be butt-mounted to existing 2.5 mm thick mounting panels)
- Mounting in desk housing PG 11/... in conjunction with flush-mounting box UPK 10 (accessory)
- Suitable for hollow wall installation in conjunction with UPK 10 and HWM-E/S (accessory)

**Standard features:**

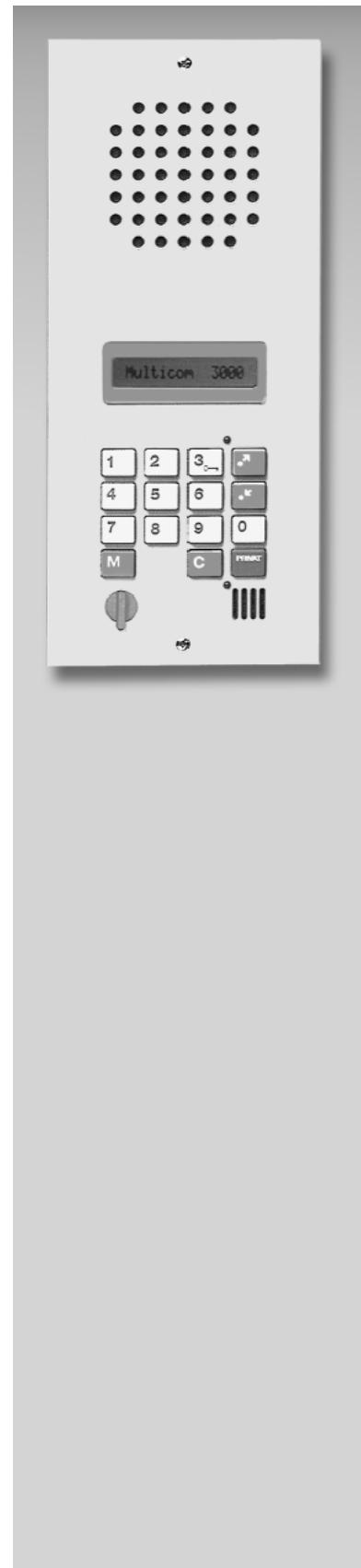
- Alphanumeric display, 16 digits
- Electronic table of contents with 108 lines
- Two LEDs
- Loudspeaker 2 W, electret microphone
- Three-position volume control
- 15 keys
- All keys can be assigned programmable special functions
- Range of available colours: aluminium-anodised (ae), other colours on request

**Measurements (height x width x depth):**

Front panel:	280 x 120 x 2.5 mm
Mounting meas. without FB:	250 x 100 x 45 mm
Distance between m.h.:	260 mm

**Accessories:**

- Swan-neck microphon SH 200/300
- Flush box UPK 10,
- Spring assembly HWM-E/S for mounting in cavity walls,
- Desk housing PG 11 for table or wall surface mounting
- Handset HOSA or HMSA



**Radio master control****304-FLS****Application:**

as radio master control, e.g. at police stations or fire brigades

- Table mounting (can also be butt-mounted to existing 2.5 mm thick mounting panels)
- Mounting in desk housing PG 11/1 in conjunction with flush-mounting box UPK 10 (accessory)
- Suitable for hollow wall installation in conjunction with UPK 10 and HWM-E/S (accessory)

**Standard features:**

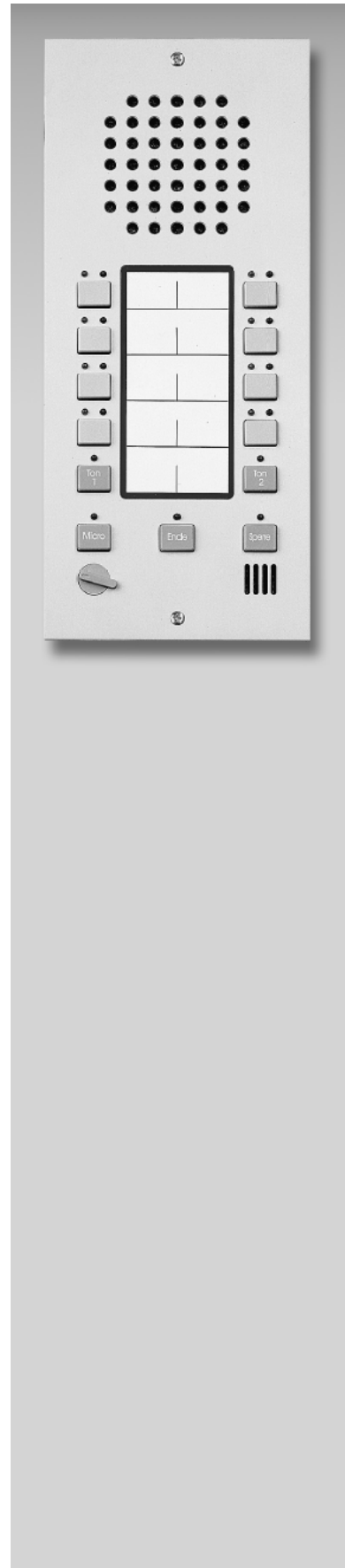
- Aluminium front plate 2,5 mm
- Loudspeaker 2 W, electret microphone
- Six-position volume control
- Five function keys
- Eight freely programmable radio channel keys (that can be labelled individually)
- Per radio channel key one control-LED red and green
- Label in centre
- Handset connection
- Colour: aluminium-anodised (ae), customised colours on request

**Measurements (length x width x depth):**

Aluminium front panel:	280 x 120 x 2.5 mm
Mounting measurements:	245 x 100 x 50 mm
Distance between m.h.:	260 mm

**Accessories:**

Handset HOSA/HMSA, swanneck microphone SH 200/300, desk-top housing PG 11/1, flush box UPK 10, spring set HWM-E/S for installation in hollow walls



**Dual radio master control****304-FLSD****Application:**

as radio master control, e.g. at police stations or fire brigades

- Table mounting (can also be butt-mounted to existing 2.5 mm thick mounting panels)
- Mounting in desk housing PG 11-X in conjunction with flush-mounting box UPK 10 (accessory)
- Suitable for hollow wall installation in conjunction with UPK 10 and HWM-E/S (accessory)

**Standard features:**

- Aluminium front plate 2,5 mm
- 2 Loudspeaker 2 W, electret microphones
- 2 x Six-position volume control
- 2 x four function keys
- 2 x four freely programmable radio channel keys (that can be labelled individually)
- Per radio channel key one control-LED red and green
- Label in centre
- Handset connection
- Colour: aluminium-anodised, customised colours on request

**Measurements (length x width x depth):**

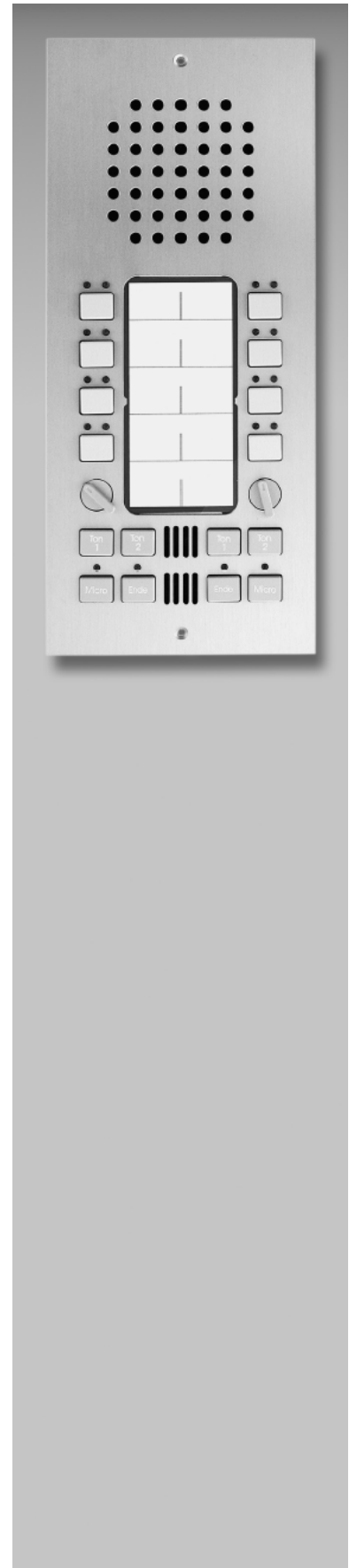
Aluminium front panel:	280 x 120 x 2.5 mm
Mounting measurements:	245 x 100 x 50 mm
Distance between m.h.:	260 mm

**Attention:**

In order to make full use of the LEDs, the interface

34-KO-LS-FU-KG or 34-KO-LS-SSR is required.

A max. of twelve 304-FLS radio master controls can be connected to a 34-KO-LS-FU.



**Key master control****304-TLS 28****Application:**

as operator's desks in control rooms of any kind in connection with flush-mount unit 303-E

**Standard features:**

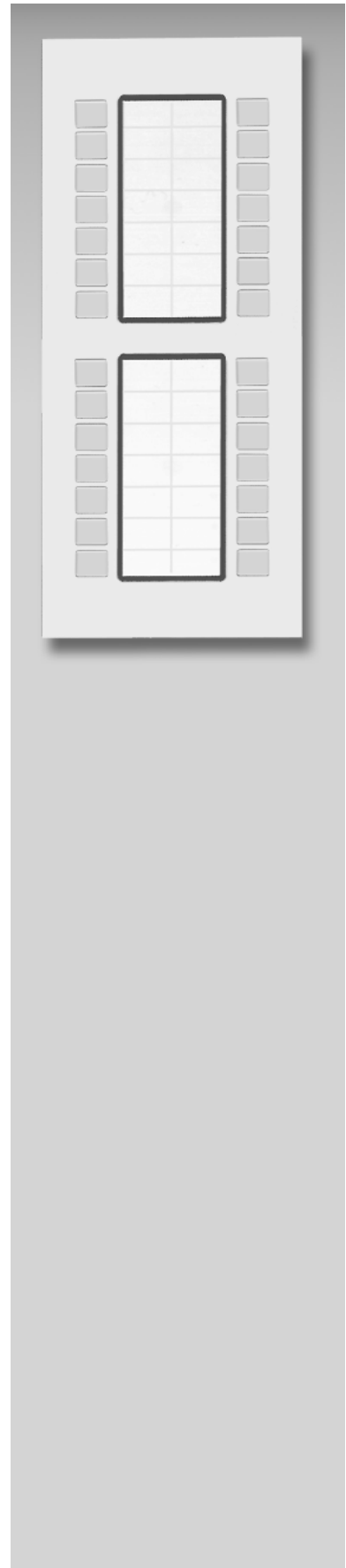
- Four master control module cascable
- 28 keys freely programmable with system-dependent or system-independent functions, can be labelled in a customer-specific way
- 28 display LEDs assigned in accordance with the key's functions
- Control and monitoring of external systems via telecontrol and/or tele-diagnosis interfaces
- Parallel display and redirection of information to several master control unit
- Plug-in power supply unit 12 V 1.2 A DC
- Colour: aluminium-anodised (ae), customised colours on request

**Measurements ( length x width x depth):**

Aluminium front panel:	280 x 120 x 2.5 mm
Mounting measurements:	245 x 100 x 50 mm
Distance between m.h.:	260 mm

**Accessories:**

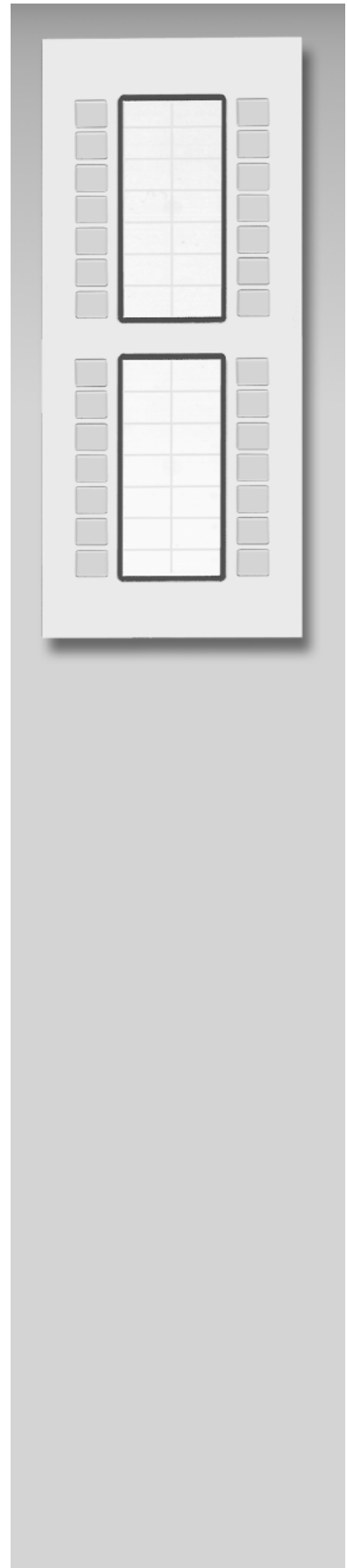
Flush-mount unit 303-E, Control board - built-in master unit  
34-PKE, expansion module 304-TLS 28E, contact card  
34-KO-LS, relay card 34-RK/LS, connection card for relay and contact card 34-AK/LS and/or 34-AKR/LS



**Key master control expansion**

With functions like Model 304-TLS 28 for expansion by 28 operational controls

**304-TLS 28E**



**Flush-mount substation****308-1E****Application:**

- Table mounting (can also be butt-mounted to existing 2.5 mm thick mounting panels)
- Mounting in desk housing PG 11/1 in conjunction with flush-mounting box UPK 10 (accessory)
- Suitable for hollow wall installation in conjunction with UPK 10 and HWM-E/S (accessory)

**Standard features:**

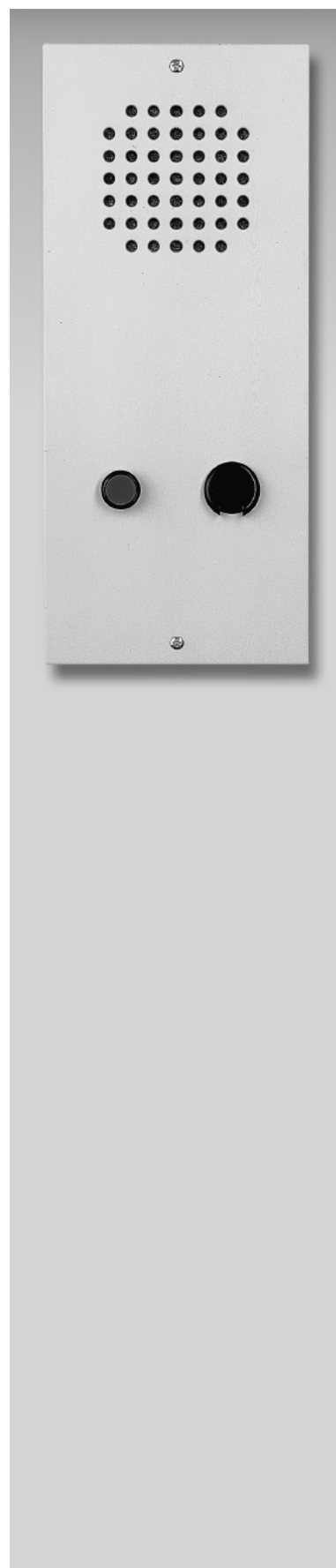
- Aluminium front panel
- One target call key (which can be provided with a light)
- Optical call display
- Loudspeaker 2 W, electret microphone
- Colours: aluminium-anodised (ae), other colours on request
- Safety Class (IP 20)

**Measurements (height x width x depth):**

Front panel:	280 x 120 x 2.5 mm
Mounting meas. without FB:	250 x 100 x 45 mm
Distance between m.h.:	260 mm

**Accessories:**

Swan-neck microphon SH 200/300, flush box UPK 10, spring assembly HWM-E/S for mounting in cavity walls, desk housing PG 11/1 for table or wall surface mounting



**School unit****308-3E****Application:**

As unit in schools (e.g. class rooms, gyms)

**Equipment:**

- aluminium front plate
- 3 target call keys, 1 separating key
- 4 name plates which can be labelled
- LED for call display
- loudspeaker 2 W
- electret microphone
- volume control in device
- colour: aluminium anodised (ae), special colours on request

**Measurements (height x width x depth):**

Front plate: 280 x 120 x 5 mm  
Installation dimension: 250 x 100 x 45 mm  
Spacing of m.h.: 260 mm

**Accessories:**

Flush-mount box UPK 10, spring assembly HWM-E/S  
for hollow wall installation, handset HOSA or HMSA,  
non-standard 2-hole screws

**School unit****308-3E/SLS**

As model 308-3E, but with key-operated switch to block  
the call functions





**Substation for prison cells****308-EV****Application:**

as substation in cells in police stations or prisons, etc.

**Standard features:**

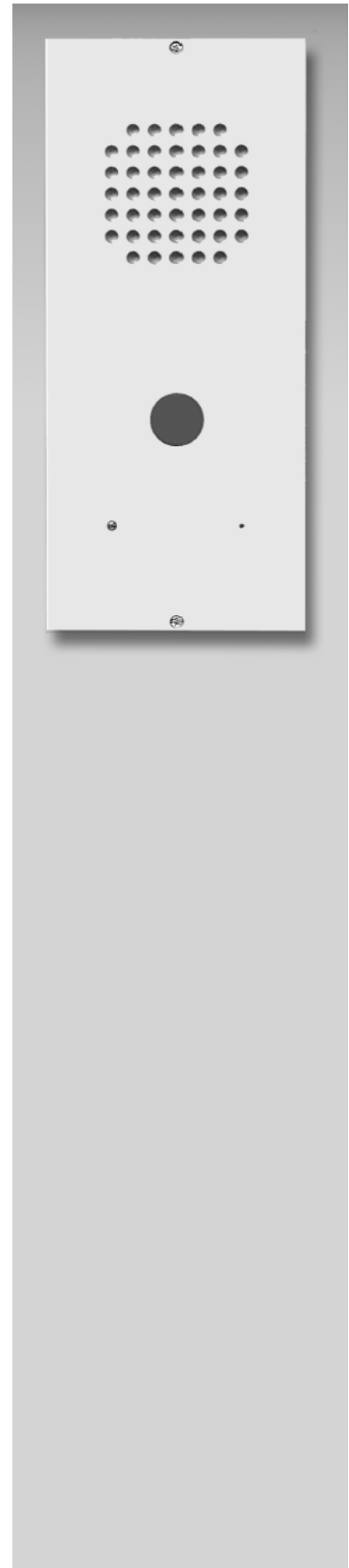
- vandal-proof aluminium-anodised frontplate and operating elements fastened with Allen screws
- a piezo button with double function:
  - call button
  - reception button (protection against eavesdropping)
- LED display
- loudspeaker 2 W
- elektret mikrophone
- volume control in device
- Safety Class (IP 30)
- Changeover-type sabotage contact

**Measurements (height x width x depth):**

Front plate:	280 x 120 x 5 mm
Installation dimension:	260 x 100 x 60 mm
Spacing of m.h.:	270 mm

**Accessories:**

Flush-mount box UPK 31 for cast-flush installation, conversion kit front panel attachment screws US-2L/M3 with 2x M3 non-standard 2-slot safety screws. Corresponding special screwdriver SD-2L/M6.



**Flush-mount master unit with  
membrane keyboard****313-E/UP****Application:**

In the medical field, in a humid or aggressive atmosphere  
or a dusty environment

- Mounting into table, if single
- Mounting into cavity walls together with UPK 10 and  
HWM-E/S (accessories)
- Special finish

Upon request for mounting into desk-top housing or for mounting  
in a row with other front plates:

- Front panel without peripheral chamfer (cylindrical)
- Front panel thickness 2.5 mm

**Standard features:**

- Safety Class IP 54 (in case of vertical mounting)
- Alphanumeric display, 16 digits
- Electronic table of contents with 108 lines
- Two LEDs
- Loudspeaker 2 W, electret microphone
- Three-position volume control (in unit)
- 15 keys (plastic foil keyboard)
- All keys can be assigned programmable special functions

**Measurements (height x width x depth):**

Front panel:	280 x 120 x 5 mm
Mounting meas. without FB:	250 x 100 x 45 mm
Distance between m.h.:	260 mm

**Accessories:**

Flush box UPK 10, spring assembly HWM-E/S for  
mounting in cavity walls



**Flush-mount substation with  
membrane keyboard****318-1E/UP****Application:**

In the medical field, in a humid or aggressive atmosphere  
or a dusty environment

- Mounting into table, if single
- Mounting into cavity walls together with UPK 10 and  
HWM-E/S (accessories)
- Special finish

Upon request for mounting into desk-top housing or for mounting  
in a row with other front plates:

- Front panel without peripheral chamfer (cylindrical)
- Front panel thickness 2.5 mm

**Standard features:**

- Safety Class IP 54 (in case of vertical mounting)
- Plastic foil keyboard
  - one target call key (customer-specific labelling)
  - function keys for answering calls, switching to  
simplex operation and disconnection
- Loudspeaker 2 W, electret microphone
- Three-position volume control (in unit)
- Two LEDs

**Measurements (height x width x depth):**

Front panel:	280 x 120 x 5 mm
Mounting meas. without FB:	250 x 100 x 45 mm
Distance between m.h.:	260 mm

**Accessories:**

Flush box UPK 10, spring assembly HWM-E/S for  
mounting in cavity walls



**Control board - built-in master station****34-PKE****Application:**

Unit as connection link between intercom and HGA control board systems

**Equipment:**

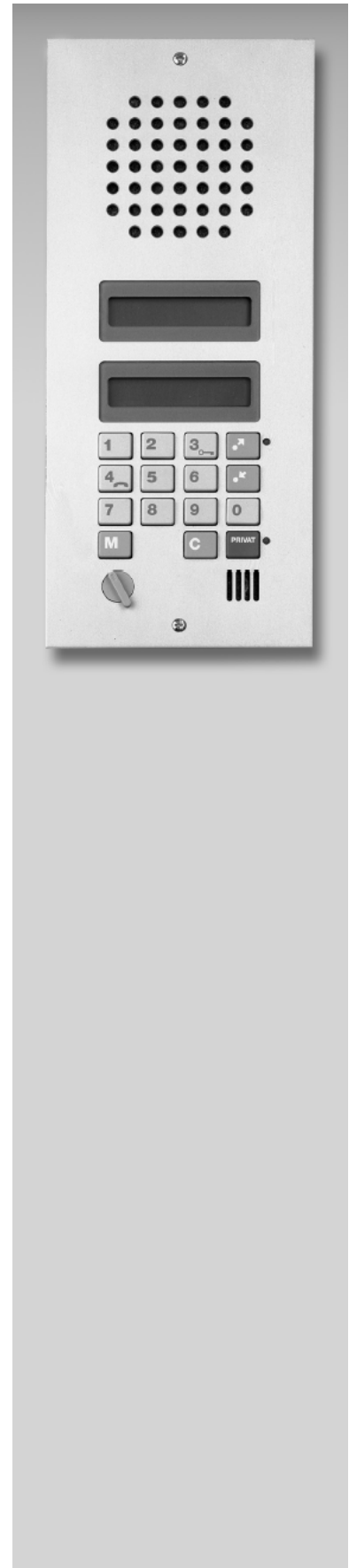
- installed in aluminium front plate
- interfaces:
  - V24 interface for PC control board
  - System interface for keypad control board
  - System interface for a, b, c, d line to intercom exchange
  - System interface for DCF 77 clock
  - Handset connection
- 2 alphanumerical displays 16-digit:
- 1 display for intercom messages
- 1 display for control board messages
- electronic index with 108 lines
- 2 LED
- 15 keys
- loudspeaker 2 W, built-in microphone
- 3-stage volume controller
- colour: aluminium anodised, special colours on request

**Measurements (length x width x depth):**

Aluminium front plate: 280 x 120 x 2.5 mm  
Installation measure: 250 x 108 x 45 mm  
Spacing of mounting holes: 260 mm

**Accessories:**

Connection cable 34-AK-RJ45-4, handset HMSA-PKE / HOSA-PKE, swanneck microphone SH 200/300



**D5 Rear-mount terminals**

These terminals have been developed for being built into bell panels, the external appearance of which must not be changed for optical considerations.

Door-calls are signalled by optical/acoustic means via the intercom. At the same time, a call supervision in the door unit is programmable.

**Special comfort** is provided by the time-controlled call-diversion to a group of units, if e.g. the reception is not occupied occasionally or during the night-hours. With the telephone dial interface, the call can be transferred via the public telephone network to a central supervisor terminal.

**Rear-mount door unit****308-0****Application:**

as flush-mount unit for existing panels

**Standard features:**

- Loudspeaker 0.5 W
- Microphone
- Four ringing keys (floating contacts) can be connected externally
- Connection for remote microphone
- Volume control in unit
- Mounting kit:
  - two mounting brackets, vertically adjustable
  - screws
  - microphone with 1 m line

**Measurements (height x width x depth):**

150 x 90 x 55 mm

**Additional mounting angles adjustable:**

Width 90 mm, height 55 ÷ 88 mm

**Rear-mount door unit (without picture)****308-10**

like Model 308-0, but for ten external ringing keys



**Rear-mount door unit****308-64****Application:**

as flush-mount unit for existing panels with up to 64 bell keys

**Extent of supply:**

- Integrated wall module 308-M
  - loudspeaker 0.5 W
  - microphone
  - volume control in unit
  - measurements: 280 x 120 x 45 mm
- Call number converter 308-RU
  - 64 ringing keys (floating contacts) can be connected externally
  - call numbers freely programmable
  - measurements: 215 x 160 x 65 mm
- Power supply unit NT 24/1000
  - primary: 230V AC
  - secondary: 24V 0.5 A DC
  - measurements: 120 x 120 x 55 mm

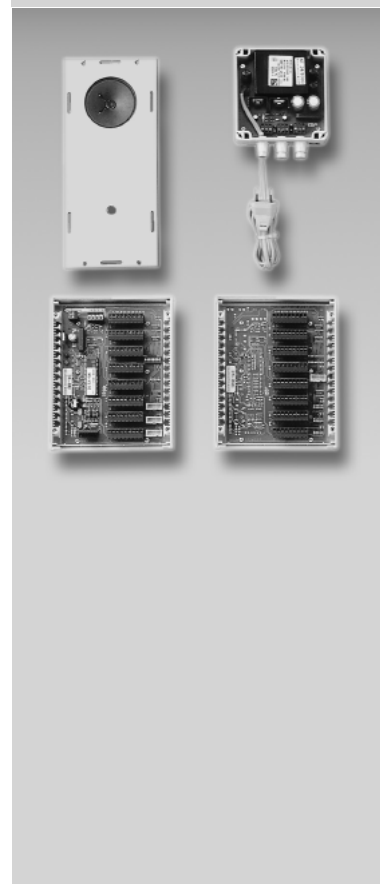
**Rear-mount door unit****308-128****Application:**

as flush-mount unit for existing panels with up to 128 bell keys

**Extent of supply:**

like Model 308-64, but additionally

- Call conversion unit sub-unit 308-RU
  - 64 ringing keys (floating contacts) can be connected externally
  - measurements: 215 x 160 x 65 mm

**Rear-mount door unit (without picture)****308-192**

as flush-mount unit for existing panels with up to 192 bell keys. Scope of supply as previously described, but with two call conversion unit expansions 308-RUE

**Rear-mount door unit (without picture)****308-256**

as flush-mount unit for existing panels with up to 256 bell keys. Scope of supply as previously described, but with three call conversion unit expansions 308-RUE

**Lift emergency call unit****308-0****Application:**

as flush-mount unit integrated behind the wall for existing lift panels the exterior appearance of which must not be changed for optical considerations.

**Standard features:**

- Loudspeaker 0.5 W
- Microphone
- Four ringing keys (floating contacts) can be connected externally. As an alternative, two ringing keys can be controlled by external voltage.
- Connection for remote microphone
- Volume control in unit
- Line supervision (programmable)
- Mounting kit:
  - two mounting brackets, vertically adjustable
  - screws
  - microphone with 1 m line

**Measurements (height x width x depth):**

150 x 90 x 55 mm

**Additional mounting angles, adjustable:**

Width 90 mm, height 55 - 88 mm

**Rear-mount unit with alphanumeric display****313-ESB/M****Application:**

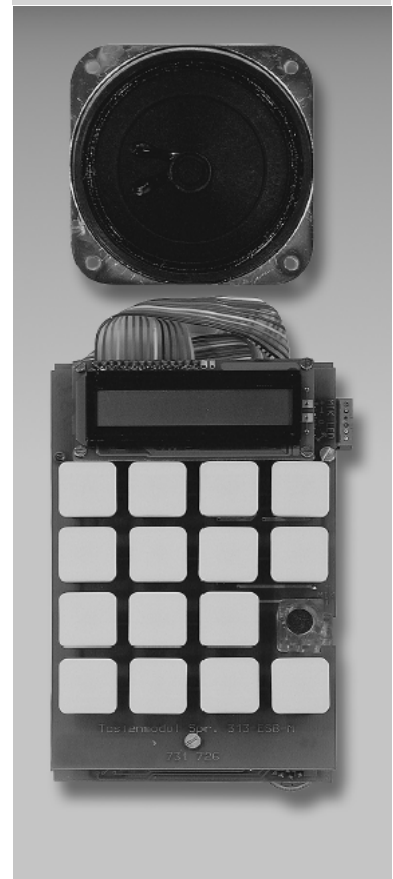
in operating theatres, microprocessor-controlled master unit for Bender membrane panels of type series TM-... and TF-...

**Standard features:**

- Six-digit alphanumeric display and electronic directory
- Directory with 28 standard messages and 80 lines for user-programmable texts
- Membrane keyboard equipped with short-stroke keys with mechanical action point (19x19 mm)
- 10 numeric and 5 function keys
- All keys can be assigned programmable special functions
- Electret microphone for operation behind fully enclosed front membrane
- Microphone sensitivity and volume adjustable inside unit
- Incl. 50 ohm loudspeaker

**Measurements (height x width x depth):**

- loudspeaker: 87 x 87 x 37 mm
- printed board: 155 x 112 x 57 mm



**D6 Door terminals****Door terminals - general information**

The modular construction of these units allows an individual design. Microphone-/loudspeaker-module and key module are separate units. The bell keys can be labelled and provided with a light. The housing is weather-proof and made of shock- and break-resistant material.

Door-calls are signalled by optical/acoustic means via the intercom. At the same time, a call supervision in the door unit is programmable.

**Special comfort** is provided by the time-controlled call-diversion to a group of units, if e.g. the reception is not occupied occasionally or during the night-hours. With the telephone dial interface, the call can be transferred via the public telephone network to a central supervisor unit.

**Door units Siedle, surface and flush mounted****Door unit module**

Door unit module fitting to Siedle Vario Programme with:

- Weather-resistant outdoor unit
- Four ringing keys can be connected externally
- Loudspeaker 0.5 W
- Microphone
- Volume control in unit
- Range of available colours:  
white (ws), titanium metallic (tm), silver metallic (sm),  
graphite-brown metallic (gm)

**Measurements (height x width x depth):**

Module measurements: 99 x 99 x 20 mm

**317-M4****Door unit module (without picture)**

like Model 317-M, but ten ringing keys can be connected externally

**317-M10**



**Door station****317-1****Application:**

as surface-mounted (AP) or flush-mount (UP) stations  
fitting to Siedle Vario Programme

**Standard features:**

- Weather-resistant outdoor station
- Loudspeaker 0.5 W
- Microphone, microphone sensitivity can be set
- One call pushbutton
- Name label
- Volume control in station
- Range of available colours: white (w?), titanium metallic (tm), silver metallic (sm), graphite-brown metallic (gm)

**Measurements (height x width x depth):**

Flush box: 200 x 100 x 50 mm  
Surface-mounted housing: 231 x 131 x 36.3 mm

**Door station (without picture)****317-2**

like door station 317-1, but with two ringing keys and  
two name labels

**Door station (without picture)****317-3**

like door station 317-1, but with three ringing keys and  
three name labels

**Door station****317-4****Application:**

as surface-mounted (AP) or flush-mount (UP) stations fitting to Siedle Vario Programme

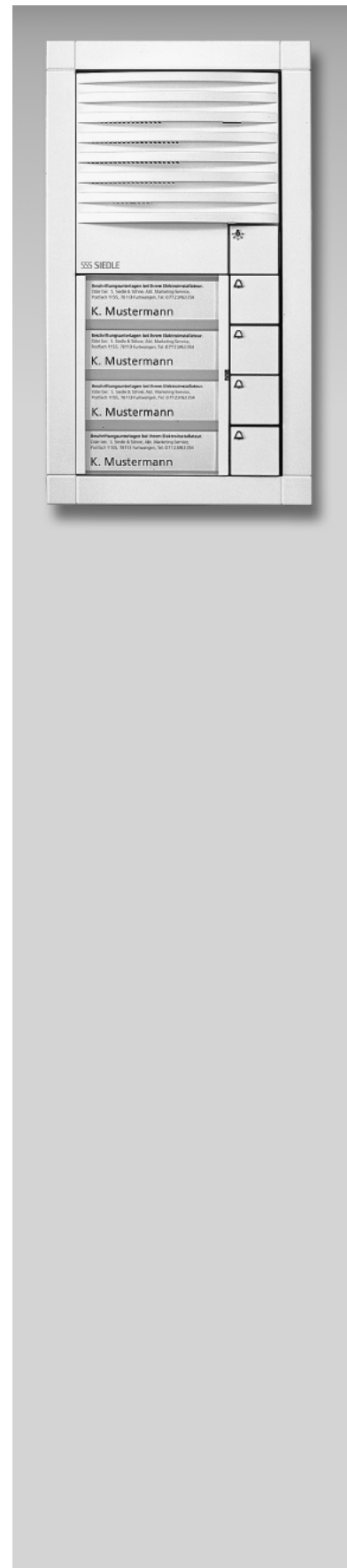
**Standard features:**

- Weather-resistant outdoor station
- Loudspeaker 0.5 W
- Microphone, microphone sensitivity can be set
- Four call pushbuttons
- Four name labels
- Volume control in station
- Range of available colours: white (w?), titanium metallic (tm), silver metallic (sm), graphite-brown metallic (gm)

**Measurements (height x width x depth):**

Flush box: 200 x 100 x 50 mm

Surface-mounted housing: 231 x 131 x 36.3 mm



**Door unit BPT, flush mounted****Door unit****Application:**

As described in D6 door terminal, however, with name buttons which can be labelled.

LED key illumination. As flush-mount (UP) unit fits to BPT programme.

**Equipment:**

- weather-resistant outdoor unit
- loudspeaker 0.25 W
- microphone, microphone sensitivity can be set
- one call button with name label
- one additional function key with labelling field
- volume control in device
- colours: white (ws), aluminium (al)

**Measurements (height x width x depth):**

Flush-mount box: 240 x 118 x 50 mm

Front plate: 252 x 130 x 16 mm

**Door unit (without picture)****327-2-UP****Application:**

As door unit 327-1, but with two call buttons

**Door unit (without picture)****327-3-UP****Application:**

As door unit 327-1, but with three call buttons

**Door unit****327-4-UP****Application:**

As door unit 327-1, but with four call buttons



**Door unit****327-1-KAM-UP****Application:**

As 327-1. But with CCD camera module (black(white)).  
Good sensitivity towards infrared radiation.

**Technical data of camera module:**

Picture sensor:	1/3" CCD
Resolution:	380 lines
Fixed objective:	f 4 mm F 5
Min. lighting:	5 Lux
Electronic shutter:	1/50" to 1/10,000"
Video signal output:	75 ohm 1 Vss BAS signal
Power supply:	14.5 - 17.5 V DC
Power input:	200 mA

**Measurements (height x width x depth):**

Flush-mount box:	355 x 118 x 50 mm
Front plate:	347 x 130 x 16 mm

**Accessories:**

Plug-in power pack NT 18/400 DC

**Door unit (without picture)****327-2-KAM-UP****Application:**

As door unit 327-1-KAM, but with two call buttons

**Door unit (without picture)****327-3-KAM-UP****Application:**

As door unit 327-1-KAM, but with three call buttons

**Door unit****327-4-KAM-UP****Application:**

As door unit 327-1-KAM, but with four call buttons



**Door unit Noralsy, flush mounted****Door unit****337-1-UP****Application:**

As described in D6 door terminals, but as stainless steel design, vandal-proof outdoor unit. Fits the Noralsy programme.

**Equipment:**

- weather-resistant outdoor unit
- loudspeaker 0.25 W
- microphone, microphone sensitivity can be set
- one call button
- volume control in device
- stainless steel brushed (grain 240)

**Measurements (height x width x depth):**

Flush-mount box: 213 x 97 x 45 mm  
Front plate: 241 x 125 x 14 mm

**Door unit (without picture)****337-2-UP****Application:**

As 337-1, but with two call buttons and 2 labelling fields. The name plates can be labelled and illuminated. The call buttons are raised as compared with the labelling field.

**Door unit****337-4-UP****Application:**

As 337-1, but with four call buttons and four labelling fields. The name plates can be labelled and illuminated. The call buttons are raised as compared with the labelling field.



**Door unit****337-1-KAM-UP****Application:**

As 337-1, but with CCD camera module (black/white).  
Good sensitivity towards infrared radiation.

**Technical data of camera module:**

Picture sensor:	1/3" CCD
Resolution:	380 lines
Fixed objective:	f 4 mm F 5
Min. lighting:	5 Lux
Electronic shutter:	1/50" to 1/10,000"
Video signal output:	75 ohm 1 Vss BAS signal
Power supply:	14.5 - 17.5 V DC
Power input:	200 mA

**Measurements (height x width x depth):**

Flush-mount box:	314 x 97 x 45 mm
Front plate:	342 x 125 x 14 mm

**Accessories:**

Plug-in power pack NT 18/400 DC

**Door unit (without picture)****337-2-KAM-UP****Application:**

As 337-1-KAM, but with two call buttons and 2 labelling fields. The name plates can be labelled and illuminated. The call buttons are raised as compared with the labelling field.

**Door unit****337-4-KAM-UP****Application:**

As 337-1-KAM, but with four call buttons and four labelling fields. The name plates can be labelled and illuminated. The call buttons are raised as compared with the labelling field.



**E Loudspeakers**

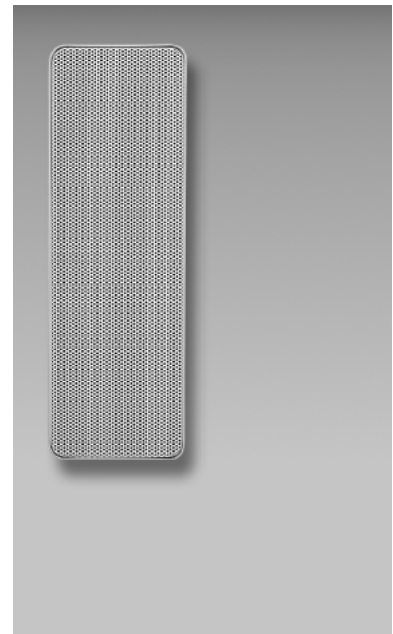
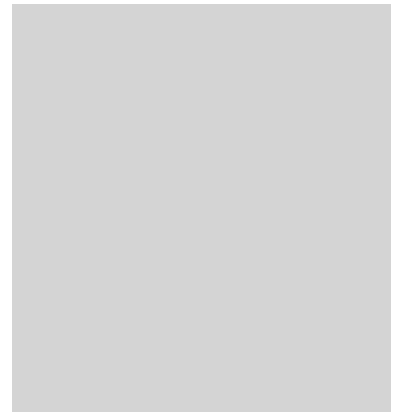
## General information

It is essentially a matter of the size of the respective room and of the acoustic circumstances whether announcements are easily understood or not. Terminal loudspeakers not always suffice to efficiently fill existing rooms with sound. Therefore, additional loudspeakers can be connected directly to a subscriber output or parallel to terminals in the case of INTERCOM master stations. With an impedance of 20 ohms, an output of 4 W is achieved.

**Column speaker**

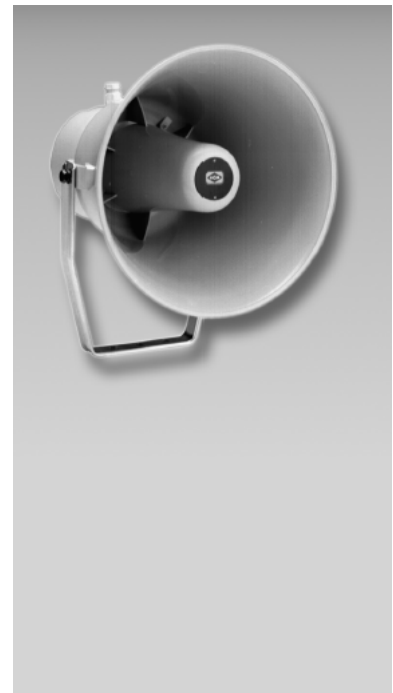
Weatherproof, stable outdoor loudspeakers in a plastic housing with fastening clip

- Design:
  - loudspeaker screens with metal grille
  - colour: white (ws)
- Features:
  - excellent sound quality
  - on request with four-position volume control
  - 30-LAR available (surcharge)
- Loudspeakers (technical specifications):
  - nominal/music load ability: 10/15 W
  - transmission range: 200 to 16,000 Hz
  - impedance: 20 ohms including decoupling capacitor
  - housing meas. (W x H x D): 300 x 100 x 85 mm
  - with fastening clip: 300 x 100 x 100 mm
  - weight: 1.6 kg

**AL 10 bi****Horn-type loudspeaker**

Description like Model DL 6-20 bi

- Loudspeakers (technical specifications):
  - continuous/peak output: 10/15 W
  - transmission range: 400 to 13,000 Hz
  - impedance: 20 ohms including decoupling capacitor
  - sound pressure level: 106 dB
  - measurements (Diameter x D): 220 x 232 mm
  - weight: 1.3 kg

**DL 10-20 bi**

**Horn-type loudspeaker****DL 6-20 bi**

Horn-type loudspeakers have a particularly high efficiency and good directivity in their sound emission. Over the whole sound spectrum they provide an almost linear frequency response and guarantee a clear firstclass voice transmission.

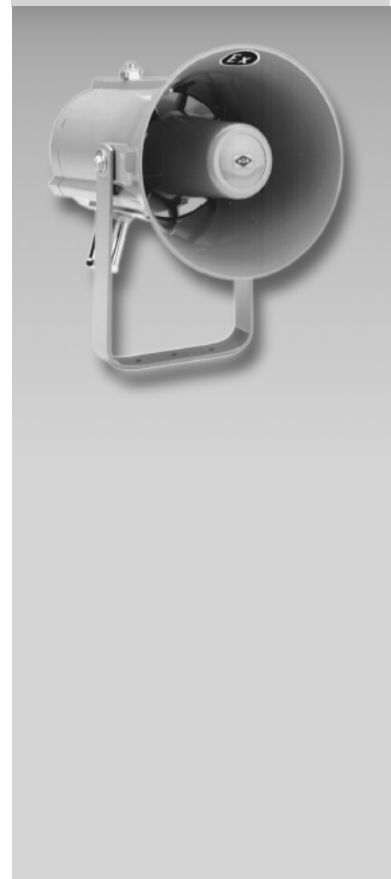
The in-built driver systems and the robust housings are weatherproof and therefore make it possible to use them in the open air. The mounting stand allows an adjustment in all directions. On request, the four-position volume control 30-LAR is available (surcharge).

- Loudspeakers (technical specifications):
  - continuous/peak output: 6/9 W
  - transmission range: 300 to 13,000 Hz
  - impedance: 20 ohms including decoupling capacitor
  - sound pressure level: 100 dB
  - measurements (Diameter x D): 110 x 93 mm
  - weight: 0.82 kg

**Horn-type loudspeaker****HS-15-Ex**

Description like Model DL 6-20 bi, but with high intrinsic safety for use on factory premises that are in danger of explosion by gases or other inflammable substances.

- Specification:
  - Deutsches Zertifikat: No. 111B/E29980
  - Explosion Protection Cl.: Ex ed 3 n G 5
  - Safety Class: IP 56
- Loudspeakers (technical specifications):
  - nominal load ability: 15 W
  - transmission range: 400 to 8,000 Hz
  - impedance: 20 ohms including decoupling capacitor
  - sound pressure level: 116 dB
  - measurements (Diameter x D): 164 x 247 mm
  - weight: 2.2 kg





**Loudspeakers for industrial unit**

Loudspeakers fitting to the unit design of the industrial master unit 316

**IHL-bi**

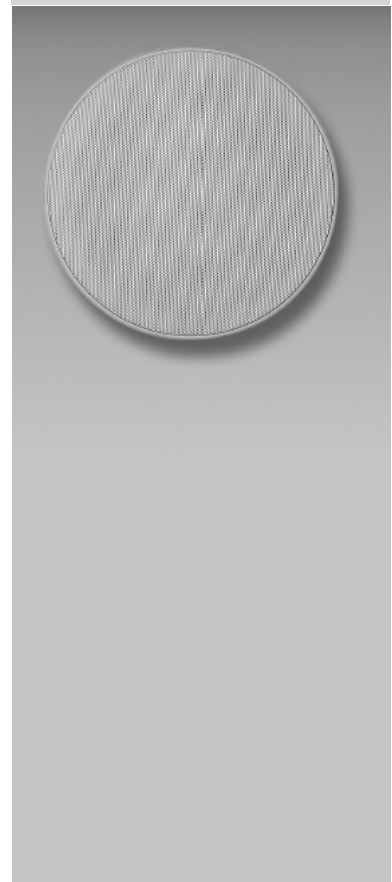
- Loudspeakers (technical specifications):
  - loudspeaker output: 3 W
  - Safety Class: IP 64
  - colour of housing: anthracite
  - colour of front panel: signal-orange
  - meas. (W x H x D): 135 x 135 x 85 mm
- Connection:  
directly to industrial unit 316

**Flush-mount ceiling loudspeaker**

Flush-mount ceiling loudspeakers for rooms where the loudspeakers should be as „invisible“ as possible.

**UL 8-20 bi**

- Design:
  - loudspeaker screen with metal grille
  - colour white (ws)
- Features:
  - excellent sound quality
  - mounting-friendly because loudspeakers come with mounting material
  - on request also available with four-position volume control 30-LAR (surcharge)
- Loudspeakers (technical specifications):
  - nominal/music load ability: 8/10 W
  - transmission range: 50 to 18,000 Hz
  - impedance: 20 ohms including decoupling capacitor
  - outside diameter: 260 mm
  - mounting diameter: 229 mm
  - mounting depth: 72 mm
  - weight: 1.3 kg



**Wall loudspeaker, surface-mounted housing****WLA 6-20 bi**

Wall loudspeakers for the acoustic irradiation of school classrooms, lecture halls, waiting-rooms, etc.

- Design:
  - colour: white (ws)
- Features:
  - excellent sound quality
  - mounting-friendly due to removable front screen, scope of delivery includes mounting material
- Loudspeakers (technical specifications):
  - nominal/music load ability: 6/8 W
  - transmission range: 110 to 21,000 Hz
  - impedance: 20 ohms including decoupling capacitor
- weight: 1.2 kg
- meas. (W x H x D): 260 x 175 x 83 mm

**Wall loudspeakers, surface-mounted housing****WLAR 6-20 bi**

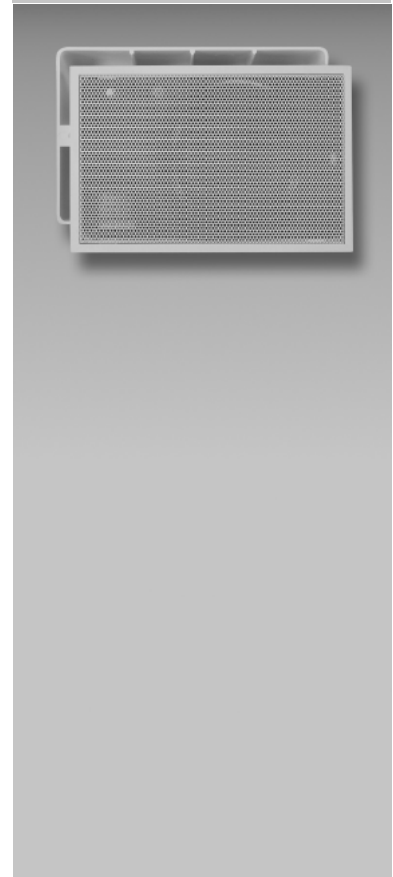
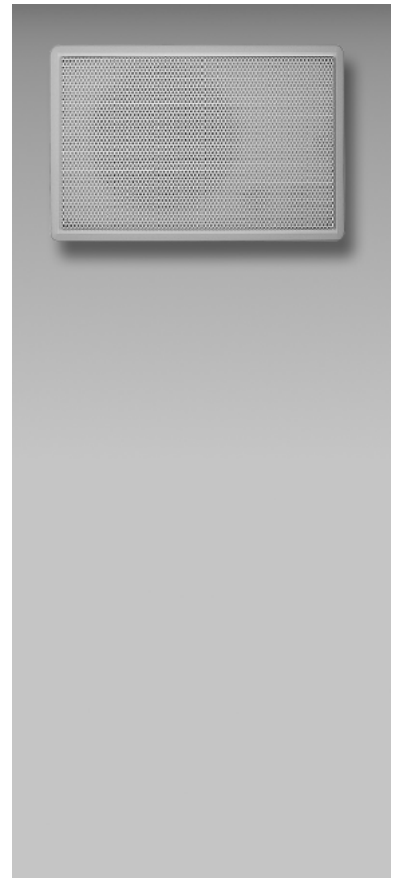
(without picture)

Wall loudspeakers in surface-mounted housing, description like Model WLA 6-20 bi, but with volume control.

**Wall loudspeaker, flush-mount housing****WLU 6-20 bi**

Wall loudspeakers in flush-mount design, description like Model WLA 6-20 bi, but instead of volume control it offers the volume control 30-LAR with four switch positions (surcharge)

- Baffle size (W x H): 250 x 165 mm
- Flush frame (W x H x D): 245 x 160 x 64 mm
- colour: white (ws)



**Accessoires for loudspeakers****Loudspeaker adapter**

Four-position volume control for loudspeakers that are connected directly to a subscriber output of the INTERCOM master station.

- Plug-in card for master station back plate
- Screwed connection for loudspeaker cable
- Measurements (height x width x depth):  
14 x 20 x 41 mm

**34-LAR****Power amplifier**

Can be connected directly to a subscriber output of the INTERCOM master station. Without speak-back feature.

- Scope of supply:
  - amplifier including power supply unit in plastic housing comes complete with mains cable
- Technical specifications:
  - power supply: 230V AC
  - output: 20 W
  - impedance: 4 ohms
- Measurements (length x width x depth):  
250 x 120 x 100 mm (height incl. PG screw joint)

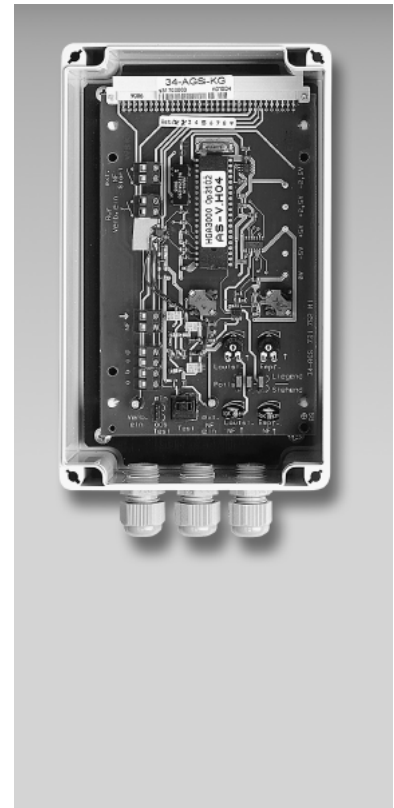
**LV 20/30**

**F.1 System interfaces****Alarm tone/gong interface**

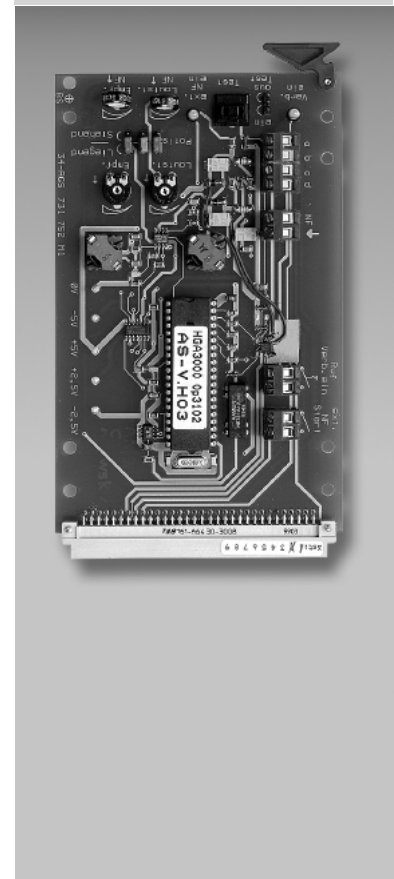
Interfacing of alarm and gong modules to be provided by owner to the intercom system.

The signal tones coupled in via the interface have highest priority in the intercom system. One subscriber output is required.

- 1 control output for external signal sources
- 1 control input for buttons or clock timers
- Input impedance 600 ohms
- Input level can be set from 20 mVss to 20 Vss
- Plastic housing, safety class IP 54
- Measurements (height x width x depth):  
230x 120 x 75 mm (height incl. Screwed connection with steel conduit thread)

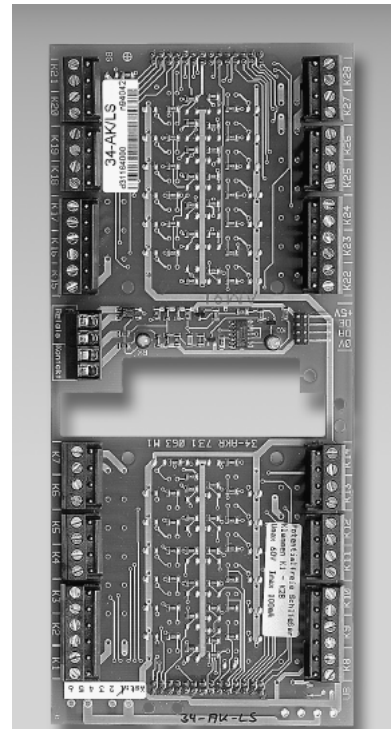
**34-AGS-KG****Alarm tone/gong interface**

As type 34-AGS-KG, but as plug-in card for interface frame

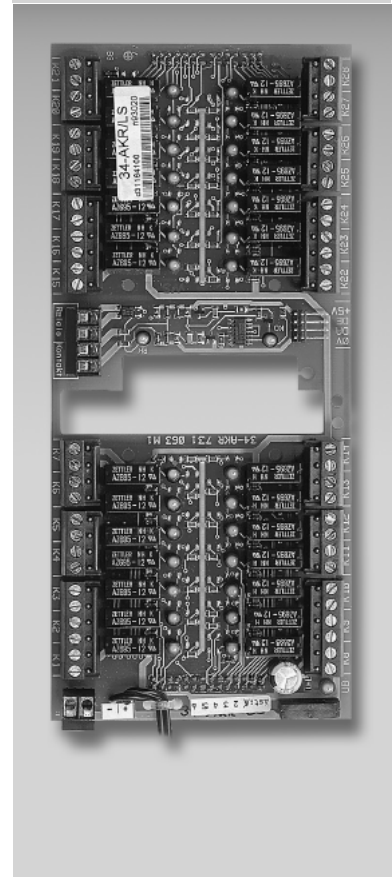
**34-AGS-SSR**

**Connection card with 2-wire data interface**

Extension module for control board keypad with 2-wire data interfaces for the connection of relay and contact cards 34-RK-LS and 34 KO-LS

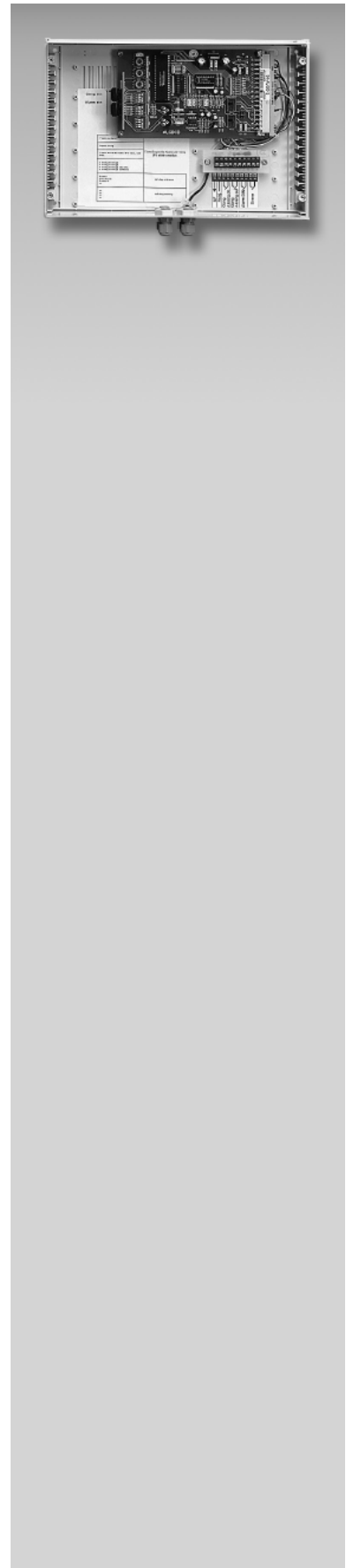
**34-AK/LS****Connection card with 2-wire data interface**

As type 34-AK/LS, but with 28 relays for local control functions, relay contacts as make contact 1 x E, 60 V/2 A.

**34-AKR/LS**

**Alarm and gong generator**

- Alarm tone acc. to DIN 33404
- Four-sound gong
- Control inputs for:
  - alarm start
  - gong start
- Output impedance:
  - 1 kohm asymmetrical
- Output level alarm/gong
  - max. 800 mV (adjustable)
- Housing measures ( height x width x depth):
  - 295 x 200 x 65 mm
- Available in housing only

**34-ALGO3-KG**

**PA-connection with line selection****34-ELA 1/16 KG**

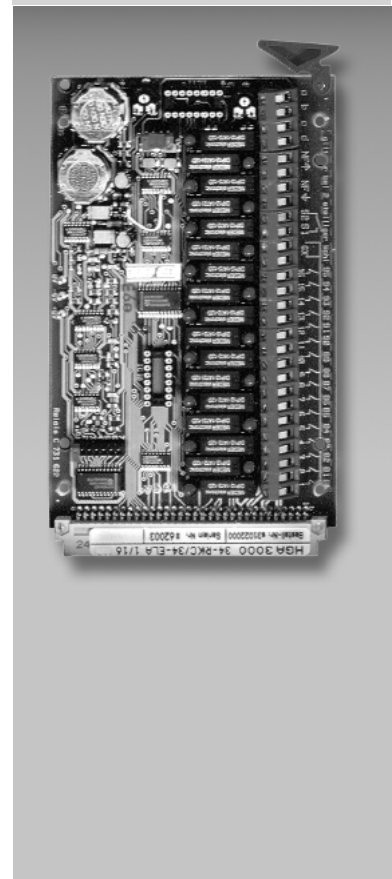
AF-interface for the adjustment of a subscriber output to the input of a 100V-PA-amplifier.

With 16 relays for the control of a line field. Due to the possibility of operating up to four interface cards parallel to a subscriber output, a total of 64 loudspeaker-circuits can be actuated individually or in all-call. One subscriber connection is required

- AF-interface
- Output level maximum of 0 dBm (adjustable)
- 16 control relays with make contacts 1 x E
- Limiting cycling capacity 50 V 0.5 A
- In plastic housing (IP 54)
- Measurements (height x width x depth):  
230 x 120 x 75 mm (height incl. PG screw joint)

**PA-connection****34-ELA 1/16 SSR**

like type 34-ELA 1/16 KG, but as plug-in card for interface frame





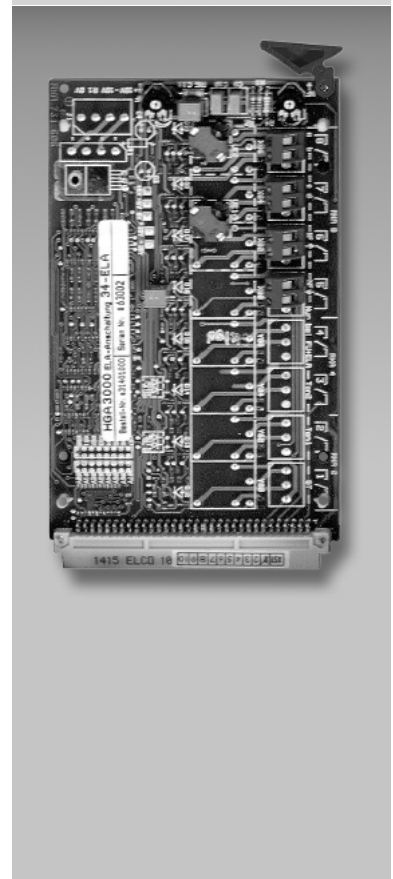
**PA-connection**

AF-interface for the adjustment of a subscriber output to the input of a 100V-PA-amplifier.

- AF-interface
- Output level maximum of 0 dBm (adjustable)
- Power supply is effected via the master station
- In plastic housing (IP 54)
- Measurements (height x width x depth):  
230 x 120 x 75 mm (height incl. PG screw joint)

**34-ELA KG****PA-connection**

like type 34-ELA KG, but as plug-in card for interface frame

**34-ELA SSR**



**PA-connection**

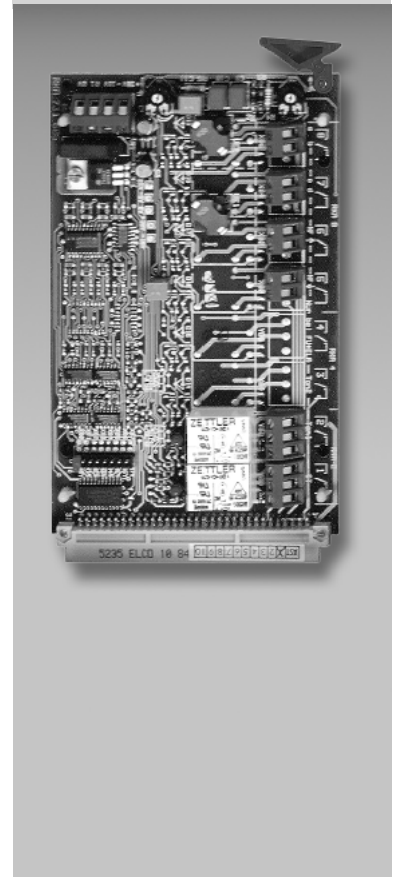
AF-interface for the adjustment of a subscriber output to the input of a 100V-PA-amplifier.

With two relays e.g. for alarm tone or gong start

- AF-interface
- Output level maximum of 0 dBm (adjustable)
- Two control relays with changeover contacts 1 x U
- Limiting cycling capacity 30V 2A
- Power supply is effected via the master station
- In plastic housing (IP 54)
- Measurements (height x width x depth):  
230 x 120 x 75 mm (height incl. PG screw joint)

**34-ELA/R KG****ELA Interfacing**

As type 34-ELA/R KG, but as plug-in card for interface frame

**34-ELA/R SSR**

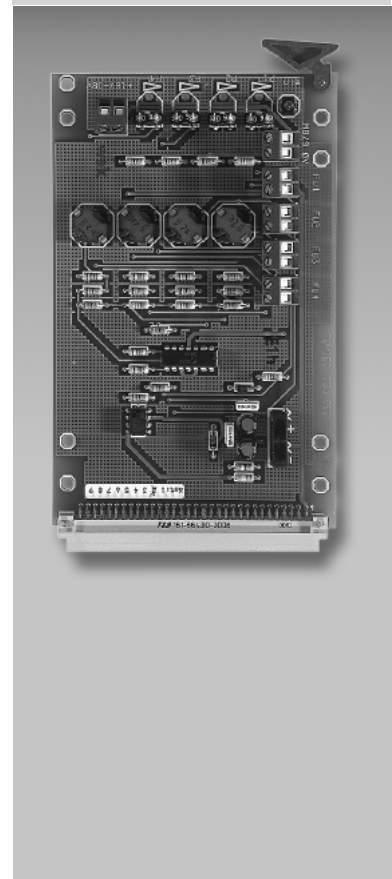
**Radio monitoring device**

Device for monitoring up to four radio channels at the same time via the unit loudspeaker. The authority for listening in can be programmed for different subscribers individually.

- In plastic housing (IP 54).
- Measurements (h x w x d):  
230 x 120 x 75 mm (height incl. PG screw joint)

**34-FUMIEI KG****Radio monitoring device**

like type 34-FUMIEI KG, but as plug-in card for interface frame

**34-FUMIEI SSR**

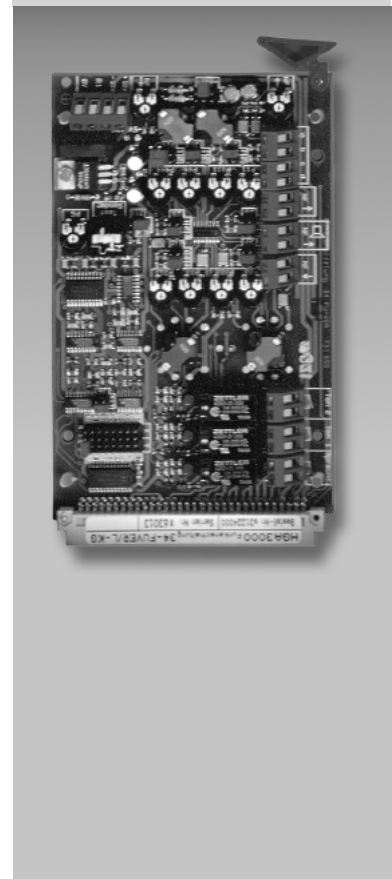
**Radio connecting circuit****34-FUVER/L KG**

Interface for the connection to all commercially available radio sets. Per master station, up to eight radio connections can be operated. The connection to the master station is effected with eight leads. One subscriber connection is required.

- AF-interface (bidirectional)
- Three control relays (sender keying, DTMF 1 + 2)
- Programmable authority to participate in radio traffic:
  - radio conference
  - listening and speaking
  - participation locked
- Radio conference allows any number of subscribers to intrude on a radio channel, to listen in, and if required also to key the sender at the same time.
- Power supply is effected via the master station.
- Output level maximum of 1 Veff / 200 ohms
- Input impedance approx. 600 ohms
- Input sensitivity < 0,45 Veff
- In plastic housing (IP 54)
- Measurements (height x width x depth):  
230 x 120 x 75 mm (height incl. PG screw joint)

**Radio connecting circuit****34-FUVER/L SSR**

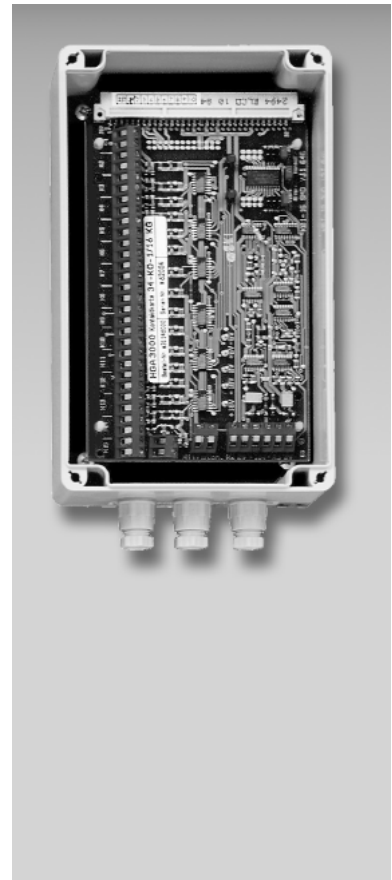
like type 34-FUVER/L KG, but as plug-in card for interface frame



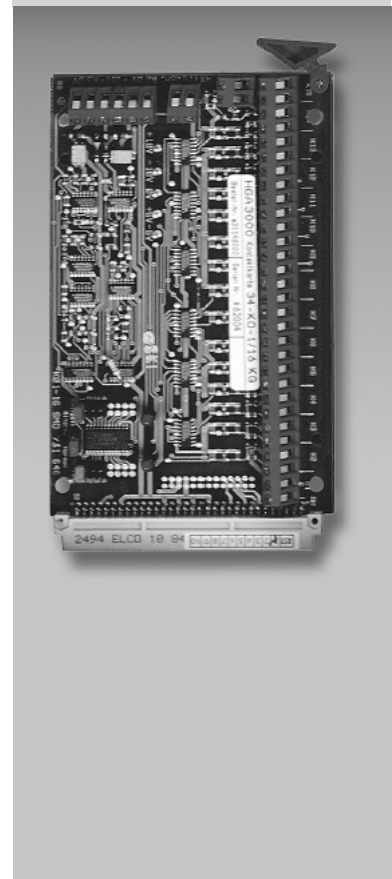
**Contact card**

Per master station module up to 64 signal inputs can be monitored. The connection to the master station is effected with six leads. No subscriber connection is occupied.

- 16 signal inputs
- Break or make contact programmable
- Types of contact:
  - signalling contacts
  - memory contacts
  - enquiry contacts
- Contact displays:
  - clear text in unit display
  - contact tone
- Power supply is effected via the master station
- in plastic housing (IP 54)
- Measurements (height x width x depth):  
230 x 120 x 75 mm (height incl. PG screw joint)

**34-KO-16****Contact card**

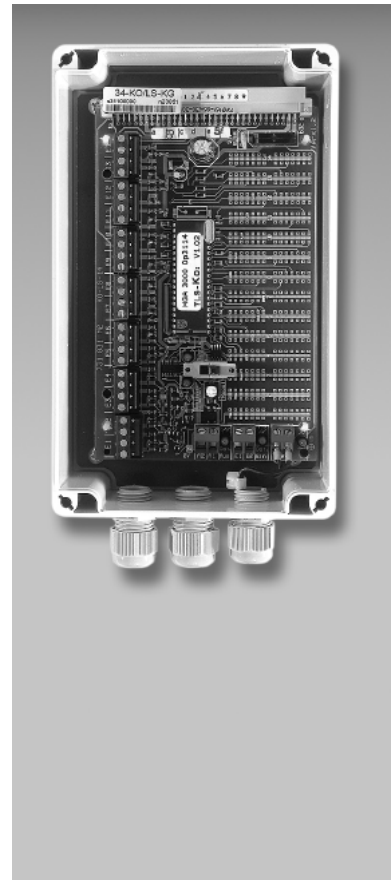
like type 34-KO-16 KG, but as plug-in card for interface frame

**34-KO-16 SSR**

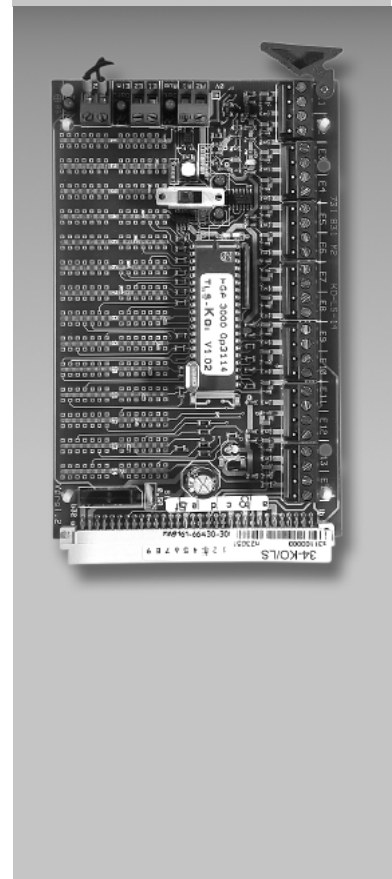
**Contact card for control board keypad****34-KO/LS KG**

In connection with the 304-TLS control board keypad it is possible to optically display system independent status signals at the control board. No subscriber connection is assigned.

- 14 signal inputs
- contact type:
  - make or break-type momentary contacts (potential free)
- contact display:
  - by LED at control board
- connection at control board via 2-wire bus max. 2000 m (JY (St) Y 1 x 2 x 0.6 mm)
- connection card with 2-wire data interface 34-AK/LS or 34-AKR/LS required
- 2 cards can be cascaded on parallel at 2-wire lead
- incl. plug-in power pack
- in plastic housing (IP 54)
- measurements (height x width x depth): 230 x 120 x 75 mm (height incl. screwed connection with steel conduit thread)

**Contact card for control board keypad****34-KO/LS SSR**

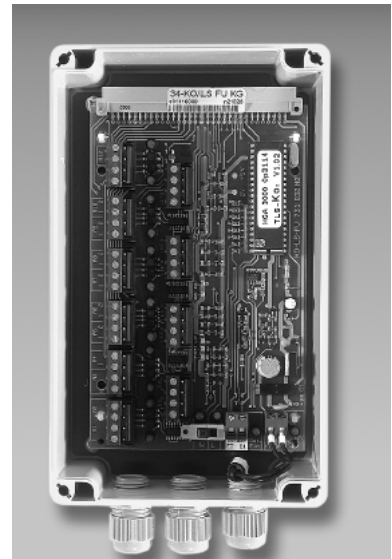
As type 34-KO/LS, but as plug-in card for interface frame



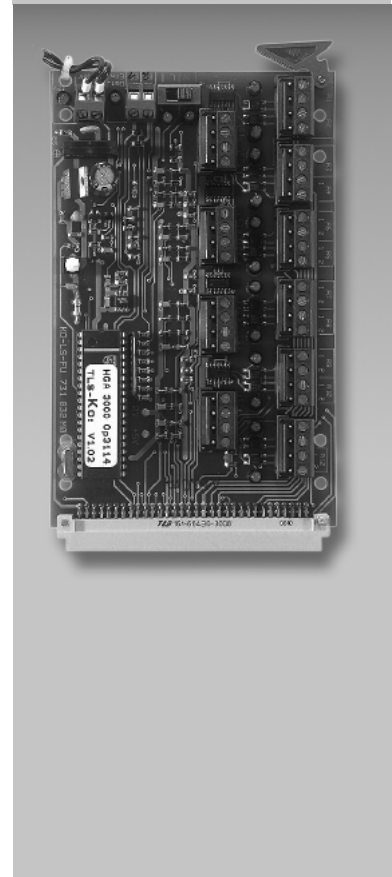
**Contact card for control board keypad****34-KO/LS/FU KG**

In connection with the 304-TLS control board keypad it is possible to optically display system independent status signals at the control board. No subscriber connection is assigned.

- 8 inputs for make or break-type momentary contacts
- contact display by LED at control board
- Connection via 2-wire system max. 2000 m (JY (St) Y 1 x 2 x 0.6 mm)
- At control board keypad, connection card 34 AK or 34 AKR required
- 12 outputs for 12 control board keypads
- Can also be used as data distributor of two 34 KO/LS series-connected contact cards with a total of 28 inputs to 12 control board keypads.
- Cards cascable to allow connection of more than 12 control board keypads
- measurements (height x width x depth): 230 x 120 x 75 mm (height incl. screwed connection with steel conduit thread)
- plug-in power supply unit

**Contact card for control board keypad****34-KO/LS/FU SSR**

As type 34-KO/LS/FU KG, but as plug-in card for interface frame





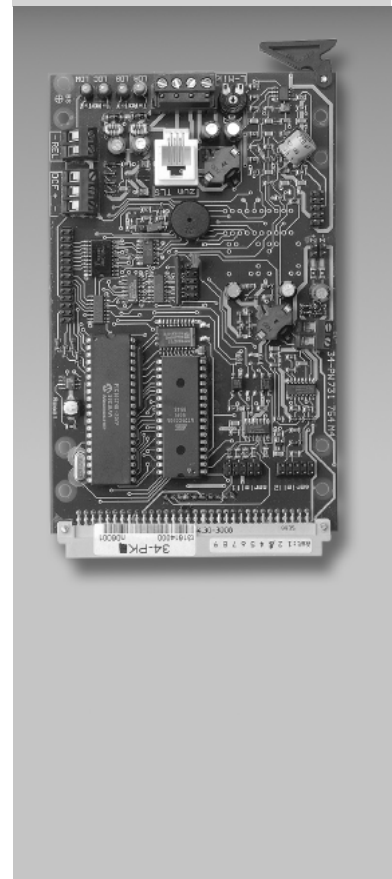
**Protocol converter**

Intelligent and programmable universal unit for the connection to one subscriber output of the intercom exchange. The universal unit is provided with an independently operating system bios with self-monitoring and provides the following applicable data interfaces:

- Communication duplex exchange
- Audio interface for microphone and loudspeaker
- Interface for keypad matrix
- Control board tie-in
- Connection for DCF77 clock (takes over the function of the master clock)
- Multi I/O
- RS 232 to tie-in systems of external manufacturers, for service purposes and long-term documentation
- Sub-assembly in plastic housing with Screwed connection with steel conduit thread
- Measurements (length x width x depth)  
245 x 160 x 65 mm (length incl. Screwed connection with steel conduit thread)

**34-PK KG****Protokoll converter**

As type 34-PK KG, but as plug-in card for interface frame

**34-PK SSR**

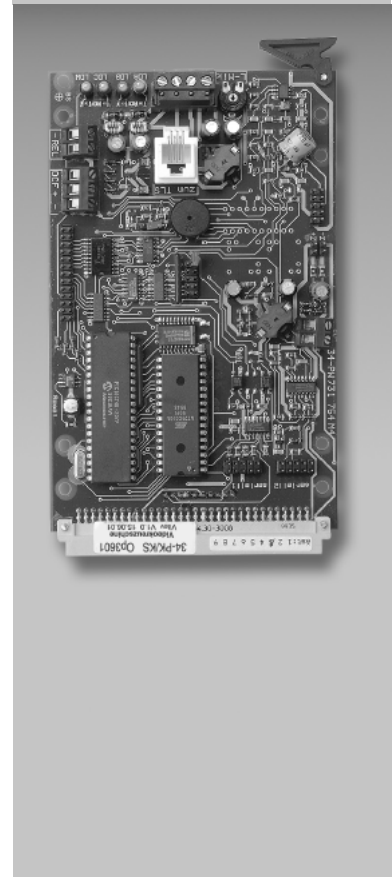
**Report Converter****34-PK/KS-VI KG****Video crossbar KG**

Intelligent, programmable universal unit for connecting to a subscriber output of the intercom exchange. The universal unit has an independently operating, self-monitoring system bios and provides 10 simultaneously useable data interfaces.

- RS232 interface for video crossbars
- Make: Ultrak
- Incl. interface protocol software for type: MAXPRO KS 328 / KS 168
- Features
  - automatic picture display
  - freely programmable sequencer
  - video matrix called by sequencer
  - 32 cameras
  - 8 monitors
  - up to 8 sequencers
- Module in plastic housing with steel conduit thread screwed connection
- Measurements (length x width x depth)  
245 x 160 x 65 mm (length incl. steel conduit thread screwed connection)

**Report Converter****34-PK/KS-VI SSR****Video crossbar SSR**

as type 34-PK/KS-VI KG, but as plug-in card for interface rack

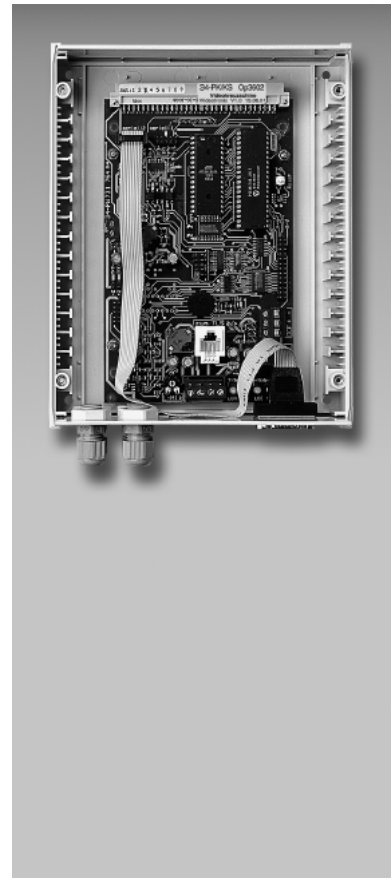




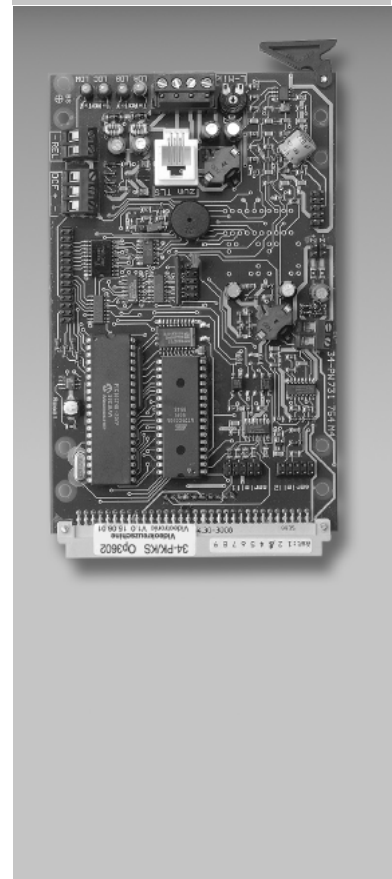
**Report Converter****34-PK/KS-VT KG****Video crossbar KG**

Intelligent, programmable universal unit for connecting to a subscriber output of the intercom exchange. The universal unit has an independently operating, self-monitoring system bios and provides 10 simultaneously useable data interfaces.

- RS232 interface for video crossbars
- Make: Videotronic
- Incl. interface protocol software for type: VMS-16/2
- Features
  - automatic picture display
  - freely programmable sequencer
  - video matrix called by sequencer
  - 16 cameras
  - 2 monitors
- Module in plastic housing with steel conduit thread screwed connection
- Measurements (length x width x depth)  
245 x 160 x 65 mm (length incl. steel conduit thread screwed connection)

**Report Converter****34-PK/KS-VT SSR****Video crossbar SSR**

as type 34-PK/KS-VT KG, but as plug-in card for interface rack



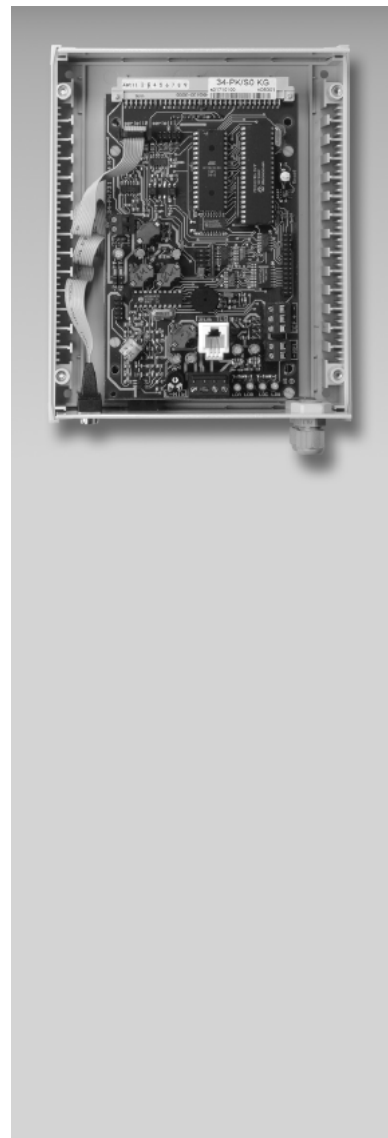
**S0 interface****34-PK/S0 KG**

Intelligent and programmable universal unit for the connection to one subscriber output of the intercom exchange. The universal unit is provided with an independently working system bios with self monitoring and a EURO ISDN-S0 port with the following features:

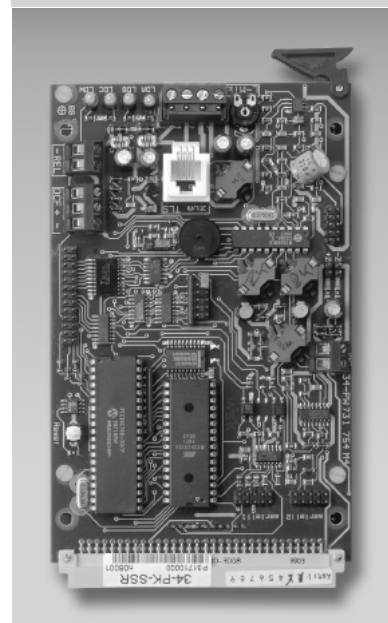
- Combination of 2 or more intercom exchanges
- Connection establishment into the public telephone network
- Possibility to dial in from the public telephone network into the unit
- Transfer of messages between intercom exchanges without connection and thus without fees
- Inter-compound connection by entering the unit number without pre- and post-dialling
- Individual calls, collective calls with answer-back, remote inquiries, conference
- Relay control
- Protection from unauthorised access by third persons
- Sub-assembly in plastic housing with Screwed connection with steel conduit thread
- **Measurements (length x width x depth)**  
245 x 160 x 65 mm (length incl. Screwed connection with steel conduit thread)

**Hint:**

The HGA-S0 interface requires a MSN connection with DSS1 protocol. The Subaddressing (SUB) feature of Deutsche Telekom is required in any case. User to user signalling (UUS3) is required for answer-back, collective call, conference and relay C control system. The S0 adapter functions like a manufacturer independent ISDN phone set.

**S0 interface****34-PK/S0 SSR**

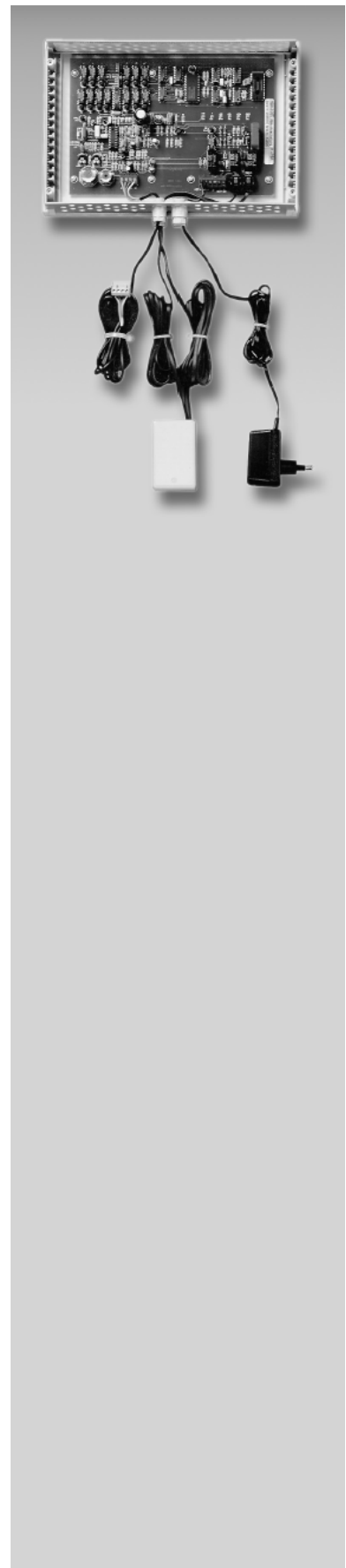
As type 34-PK/S0 KG, but as plug-in card for interface frame



**PSA interfacing**

Interface for the connection to all commercially available paging system provided with a telephone interface with pulse dialling or multi-frequency dialling.

- Types of calls:
  - selective pager call (unrestricted)
  - release of alphanumerical display messages and number post-dialling
  - forward and backward call feature
- Output level max. 0 dBm to 600 ohms
- Measurements (length x width x height):  
295 x 100 x 65 mm

**34-PSA**

**Relay card A**

Per master station module, up to 64 A-relays can be controlled.  
The connection to the master station is effected with four leads.  
No subscriber connection is occupied.

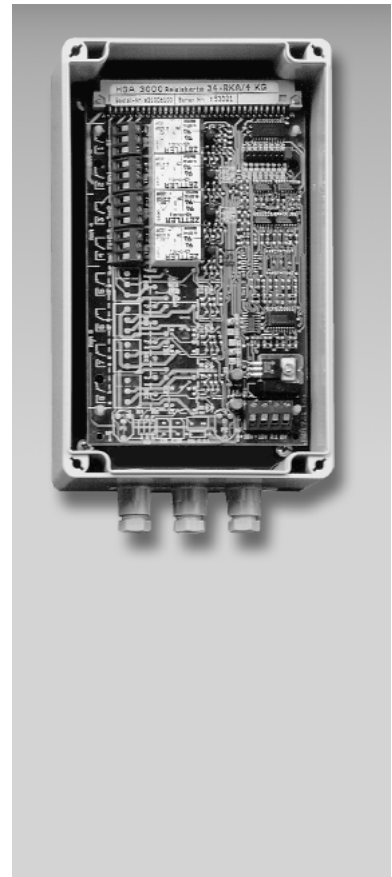
A-relays can be assigned to a particular subscriber unit number individually, as pairs or as a group (four relays).

- Changeover contacts 1 x U
- Limiting cycling capacity 30V 2A
- Relay functions:
  - manual relay
  - automatic relay
  - impulse relay
- Control possibilities:
  - Individual relays can be operated optionally as manual, automatic or impulse relays.
  - Relay pairs are equipped with an automatic and a manual relay.
- Relay groups have an automatic and three manual relays.
- The power supply is effected via the master station.

**Relay card A**

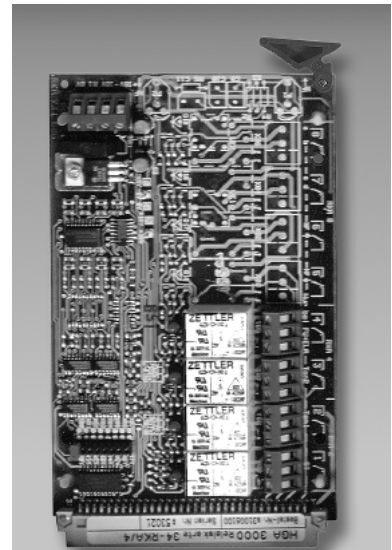
Scope of supply as previously described

- With four relays
- In plastic housing (IP 54)
- Measurements (height x width x depth):  
230 x 120 x 75 mm (height incl. PG screw joint)

**34-RKA/4 KG**

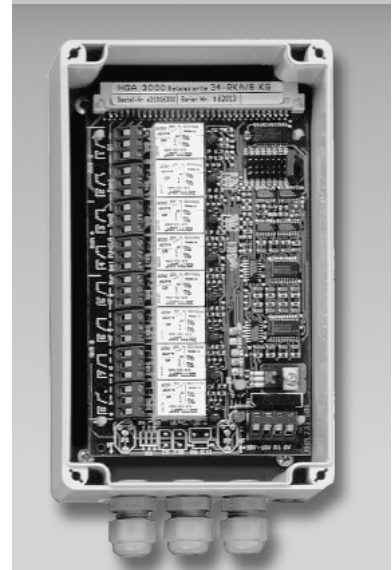
**Relay card A**

like type 34-RKA/4-KG, but as plug-in card for interface frame

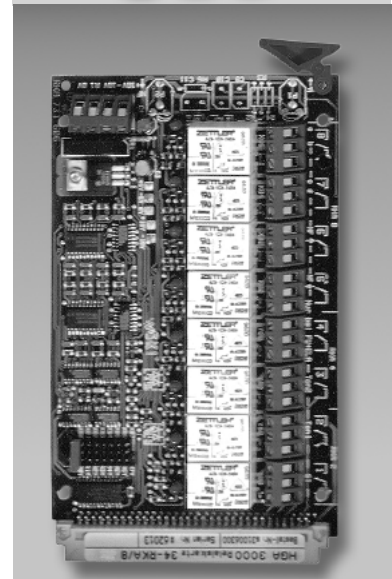
**34-RKA/4 SSR****Relay card A**

Scope of supply as previously described

- With eight relays
- In plastic housing (IP 54)
- Measurements (height x width x depth):  
230 x 120 x 75 mm (height incl. PG screw joint)

**34-RKA/8 KG****Relay card A**

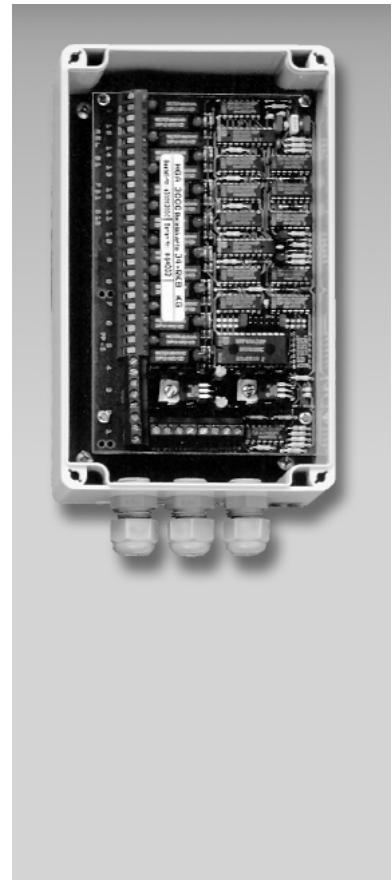
like type 34-RKA/8-KG, but as plug-in card for interface frame

**34-RKA/8 SSR**

**Relay card B****34-RKB KG**

Per master station module, up to 64 B-relays can be controlled.  
The connection to the master station is effected with six leads. No subscriber connection is occupied.

- 16 relays
- Make contact 1 x E
- Limiting cycling capacity 50 V 0.5 A
- Relay functions:
- BCD output unit (all relays are assigned to a subscriber unit number)
- Power supply is effected via the master station.
- Output unit for 16 lockout timers of cell unit 308-EV
- In plastic housing (IP 54)
- Measurements (height x width x depth):  
230 x 120 x 75 mm (height incl. PG screw joint)

**Relay card B****34-RKB BP**

like type 34-RKB-KG, but without housing





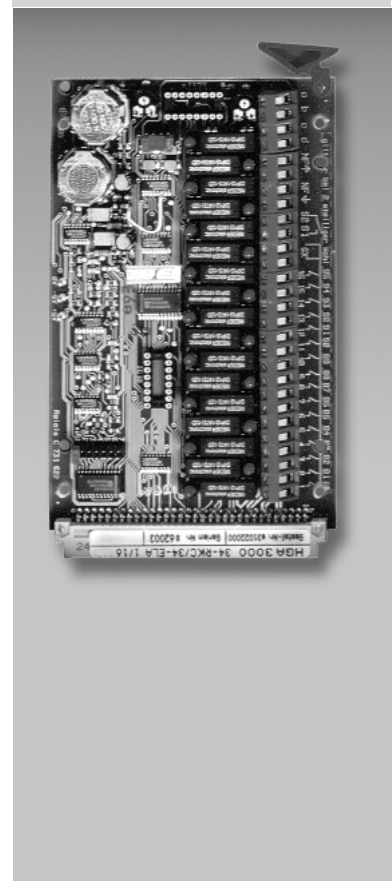
**Relay card C****34-RKC KG**

The number of relay cards C in a master station is limited only by the available number of subscriber outputs. The connection is effected with four leads directly to a subscriber output.

- 17 relays
- Make contact 1 x E
- Limiting cycling capacity 50 V 0.5 A
- Relay functions:
  - manual relay
  - automatic relay
- Control possibilities:
  - Individual relays that are assigned to a subscriber unit number.
  - Relay group (16 relays) that is assigned to a subscriber number, with the individual relays assigned to particular keys of a master unit's keyboard.
- AF-interface for speaking and listening
- Power supply is effected via the master station
- In plastic housing (IP 54)
- Measurements (height x width x depth):  
230 x 120 x 75 mm (height incl. PG screw joint)

**Relay card C****34-RKC SRR**

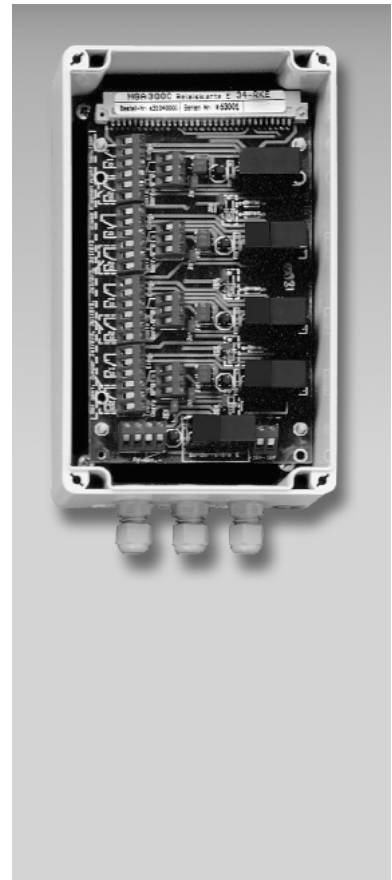
like type 34-RKC-KG, but as plug-in card for interface frame



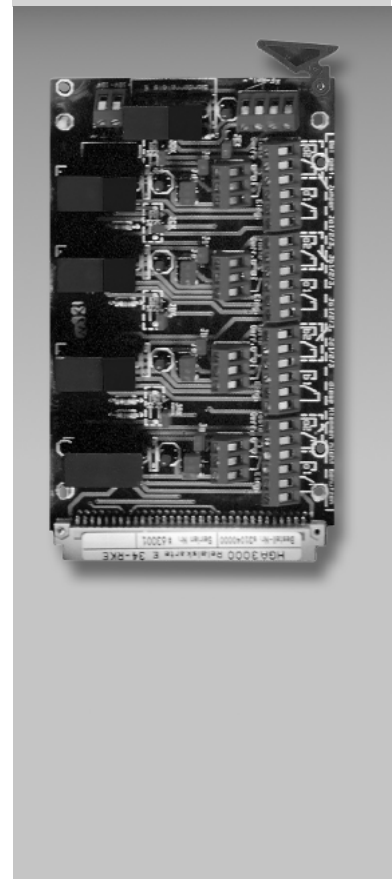
**Relay card E****34-RKE KG**

This type of relay is a system-independent module that offers a series of additional control-possibilities in connection with the relay cards A, B and C. No subscriber connection is occupied.

- Four relays
- Changeover contacts 2 x U
- Limiting cycling capacity 30V 2A
- Relay functions:
  - self-hold relays individually or as a group with two, three or four relays
  - reset of the self-hold state is carried out manually individually or jointly via reset-input
- Power supply 24V 0.23A DC (can be effected via the master station)
- In plastic housing (IP 54)
- Measurements (height x width x depth): 230 x 120 x 75 mm (height incl. PG screwed joint)

**Relay card E****34-RKE SSR**

like type 34-RKE-KG, but as plug-in card for interface frame

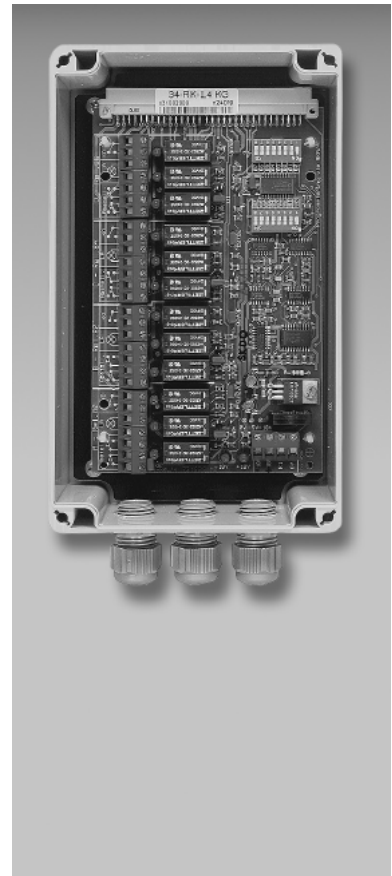




**Relay card type L4 for cell light call control****34-RK/L4 KG**

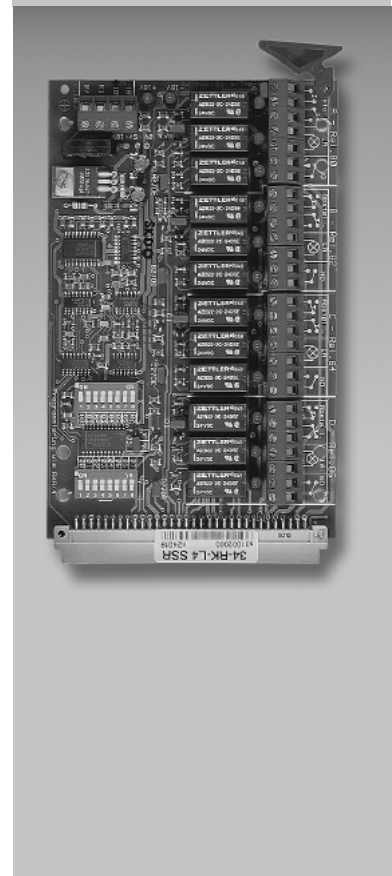
for controlling 4 cell lamps (nil potential)

- 4 memory relays for cell lamps
- 4 NC-type resetting inputs
- 4 NO-type resetting inputs
- 4 relay outputs (NO) for contact card of control board keypad
- Module in plastic housing with steel conduit thread screwed connection (IP 54)
- Measurements (length x width x depth):  
230 x 120 x 75 mm (height incl. steel conduit thread screwed connection)

**Relay card type L4 for cell light call control****34-RK/L4 SSR**

for controlling 4 cell lamps (nil potential)

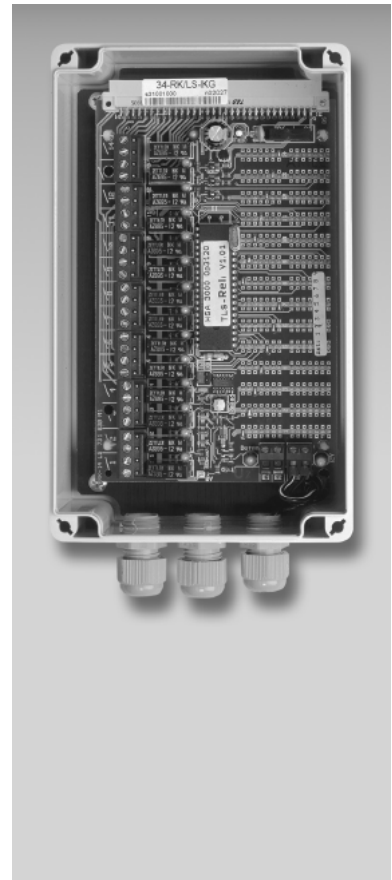
- 4 memory relays for cell lamps
- 4 NC-type resetting inputs
- 4 NO-type resetting inputs
- 4 relay outputs (NO) for contact card of control board keypad
- Module in plastic housing with steel conduit thread screwed connection (IP 54)



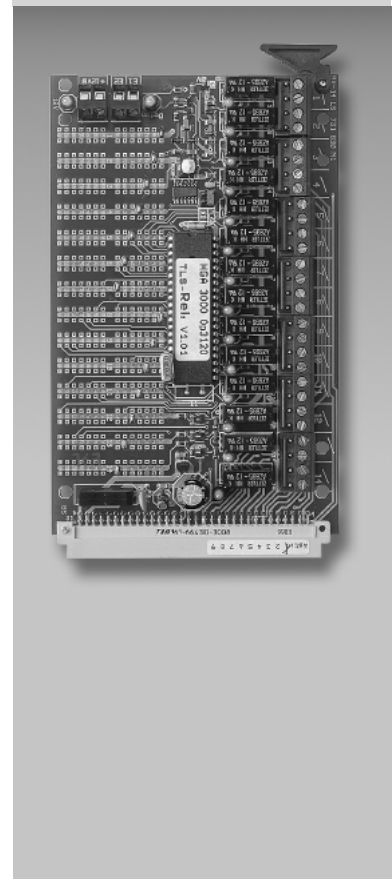
**Relay card for control board keypad****34-RK/LS KG**

In connection with the 304-TLS control board keypad it is possible to control system independent relays at the control board. No subscriber connection is assigned.

- 14 potential free making contacts 1 x E
- limiting cycling capacity 60 V 2 A
- assignment of relays to the keys of the control board keypad via soldered fields programmable
- connection at control board via 2-wire bus max. 2000 m (JY (St) Y 1 x 2 x 0.6 mm)
- connection card with 2-wire data interface 34-AK/LS or 34-AKR/LS required
- 2 cards can be cascaded on parallel at 2-wire lead
- data diagnosis via LED
- data input can be changed over:
  - remote operation interface for connection cards with 2-wire data interface 34-AK/LS and/or 34 AKR/LS
  - remote operation interface to be directly connected to a remote diagnosis interface 34-KO/LS (does not depend on control board)
- incl. plug-in power pack
- in plastic housing (IP 54)
- measurements (height x width x depth): 230 x 120 x 75 mm (height incl. screwed connection with steel conduit thread)

**Relay card for control board keypad****34-RK/LS SSR**

As type 34-RK/LS KG, but as plug-in card for interface frame



**Telephone dial interface****34-TWI KG**

Microprocessor controlled interface for the connection to a subscriber output of the intercom main unit. Exclusive to German market.

**Standard features:**

- Interfaces:
  - Test interface for handset
  - RS 323 interface as programming interface
- Connection of the intercom to branch exchanges and to the main connection (a / b) by means of TAE plug
- Features of ongoing speech traffic:
  - Three feature groups
  - Redial/target dial/emergency call
  - 2 block of phone numbers with 4 calling numbers each
  - 20 memory places for emergency call and/or target dial authorisation
- Features of incoming speech traffic:
  - free dial-in and dial through
  - speech direction control /simplex/duplex)
  - group calls
  - switching of relays for door opening, ELA switch-on, etc.
- General features
  - line monitoring
  - call state display

**Standard features:**

- In plastic housing
- One potentiometer with LED for central and subscriber busy tone recognition
- Connection cable with Western plug RJ45-4
- Connection cable with TA plug for a/b line
- Serial COM connection cable nine pins
- Programming software on disk for Win 95/98

**Measurements (length x width x depth):**

245 x 160 x 65 mm

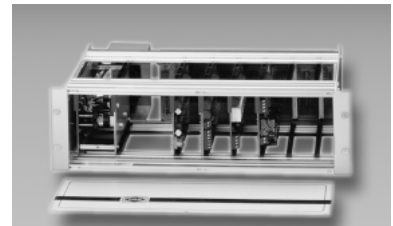
**Telephone dial interface****34-TWI/SP KG**

As type 34-TWI, but with speech option for automatic text announcement. Exclusive to German market.



**F.2 Accessories for system interfaces****Interface frame**

Mounting work for several interface cards in one intercom system is reduced considerably. Control, power supply - also for external components - is carried out via the distributor's back plate. Interface cards and back plate connections are pluggable.

**34-SSR 6****Range of supply:**

- 19"-frame with 3 dimension units including front panel
- Mains and connecting cable to the INTERCOM master station

**Expansion:**

- Maximum of six system interfaces (Europe card format)
- Power supply unit NT 8/5000 (for door openers)

**Measurements (height x width x depth):**

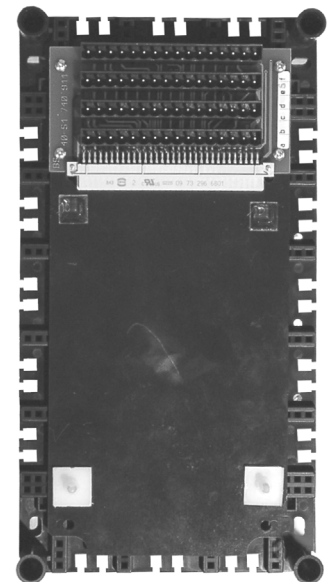
3 dimension units x 19" x 320 mm

**Accessories:**

Compact housing 34-KG 4, swivel frame 34-SR

**Compact housing for the interface components:**

Type 34-AGS SSR, 34-ELA 1/16 SSR, 34-ELA SSR, 34-ELA/R SSR, 34-FUMIEI SSR, 34-FUVER/H SSR, 34-FUVER/L SSR, 34-KO-16 SSR, 34-KO/LS KG, 34-KO/LS/FU SSR, 34-PK SSR, 34-PK/KS-VI SSR, 34-PK/KS-VT SSR, 34-PK/SO SSR, 34-RKA/4 SSR, 34-RKA/8 SSR, 34-RKC SSR, 34-RKE SSR, 34-RK/L4 SSR, 34-RK/LS SSR with integrated universal board

**34-KG**

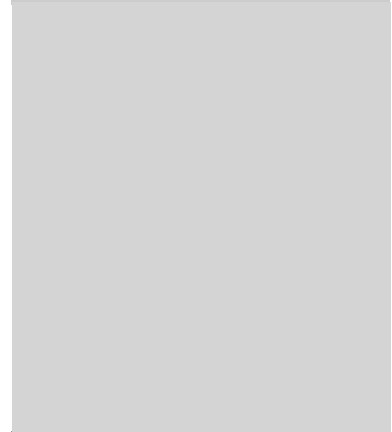
- housing consisting of bottom with universal board and top
- compact housing rowable with connecting parts supplied
- protecting class IP 20
- dimensions (length x width x height) 265 x 145 x 80 mm

**G Accessoires**

**Connecting cable with Western-connector**  
four pins, length 2.5 m, color: grey

**34-AK-RJ45-4**

**Connecting cable with 25- pin male  
SUB/D connector** (without picture)  
Cable 25-pin, length 2,5 m, color: grey

**34-AK-SUB/D25**

**Connecting cable with TAE-connector**  
four pins for desk unit 303, 313-A, and 318-1A  
length 2.5 m, color: grey

**34-AK-TAE/F-4****Loudspeaker adapter**

Four-position volume control for loudspeakers that are connected directly to a subscriber output of the INTER-COM master station.

- Plug-in card for master station back plate
- Screwed connection for loudspeaker cable
- Measurements (height x width x depth):  
14 x 20 x 41 mm

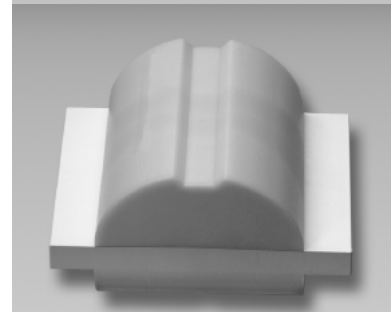
**34-LAR**

**Switch-off button for cell light call**

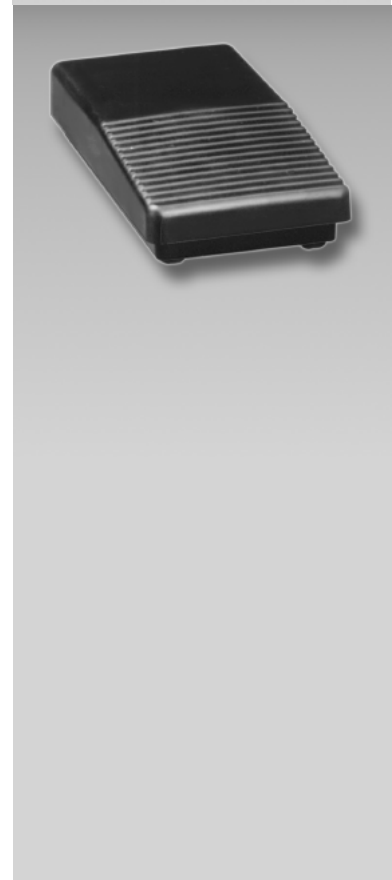
- Flush-mount, fitting into 55 mm ISO wall box
- Single contact
- Colour: white

**ABTA****Indicating lamp for cell light call**

- Design:
  - three lamp chambers (incl. festoon lamp LA-K1, ws, rt, gn)
- Measurements (width x depth x height):
  - 158 x 87 x 110 mm
- Colour: plastic holder and lighting bowl white

**AZL-3 ML****Foot switch**

- For the remote control of units
- Remote control functions
  - emergency call or
  - target call or
  - answering calls, etc.
  - incl. 4 m connection cable
- grouping

**FSI**

**Handset with press-to-talk button for 303-E****HMSA****Application:**

In radio desks for privacy during radio conversations in connection with flush-mount unit 303-E (handset interface required).

**Standard features:**

- Handset with press-to-talk button in flush-mount design; colour grey
- Front plate: Aluminium-anodised
- Separate pad with troughs for receiver and cradle switch
- Automatic switchover function between handset and unit operation
- Special protection against eavesdropping (tap-proof)

**Measurements (height x width x depth):**

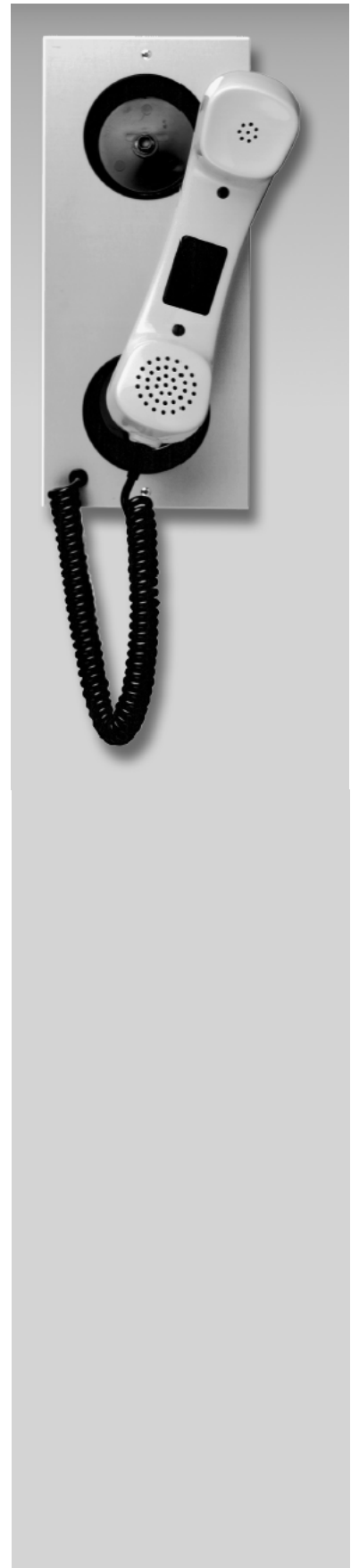
Mounting measurements:	250 x 100 x 55 mm
Front panel:	280 x 120 x 2.5 mm
Distance between m.h.:	260 mm

**Handset with press-to-talk button for PKE****HMSA-PKE**

(without picture)

like model HMSA,

however in connection with control board - built-in master unit 34-PKE.



**Handset without press-to-talk button for 303-E****HOSA****Application:**

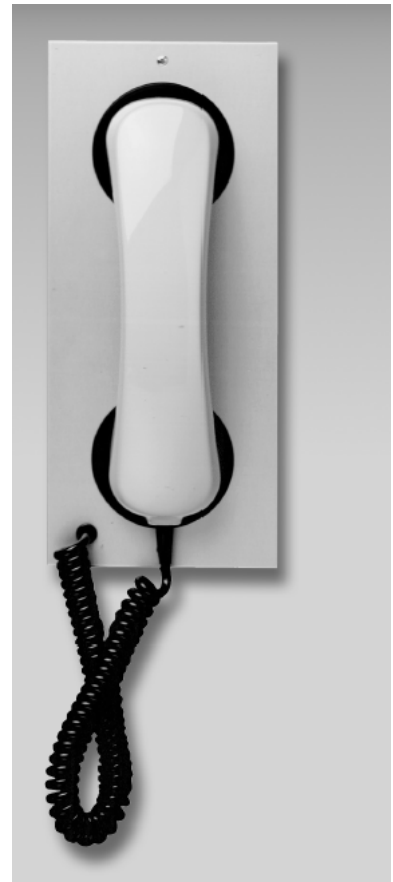
In connection with flush-mount unit 303-E (handset interface required). For privacy during conversations in rooms that are open to the public or in loud surroundings.

**Standard features:**

- Handset without press-to-talk button in flush-mount design; colour: grey
- Front plate: Aluminium-anodised
- Separate pad with troughs for receiver and cradle switch
- Automatic switchover function between handset and unit-operation
- Special protection against eavesdropping (tap-proof)

**Measurements (height x width x depth):**

Mounting measurements:	250 x 100 x 55 mm
Front panel:	280 x 120 x 2.5 mm
Distance between m.h.:	260 mm

**Handset without press-to-talk button for PKE****HOSA-PKE**

(without picture)

like model HOSA,

however in connection with control board - built-in master unit 34-PKE.



**Headset with microphone****HSG****Application:**

in industry, if e.g. in production lines production parameters have to be harmonised with each other and the rooms or acoustic circumstances do not allow hands-free speaking.

**Standard features:**

- Headset with two ear pieces
- Microphone with adjustable headband fixed to headset
- Two metre cable with DIN-connector; special lengths on request

**Special feature:**

The unit is switched to mute when connected to the headset. In order to connect the HSG, the station must be specially equipped.

**Spring assembly****HWM-E/S**

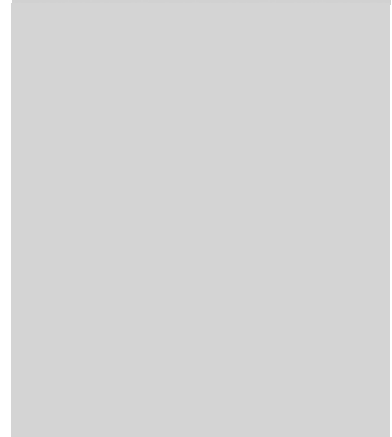
- Application:
  - for mounting boxes for flush mounting in cavity walls
- Amount:
  - four springs

**LA-K1 Festoon lamp for AZL-3ML (without picture)****LA-K1**

ï 24V, 3.5W

ï Colours:

- white (ws)
- green (gn)
- red (rt)



**Power amplifier****LV 20/30**

Can be connected directly to a subscriber output of the INTERCOM master station. Without speak-back feature.

- Scope of supply:
  - amplifier including power supply unit in plastic housing comes complete with mains cable
- Technical specifications:
  - power supply: 230V AC
  - output: 20 W
  - impedance: 4 ohms
- Measurements (length x width x depth):  
250 x 120 x 100 mm (height incl. PG screw joint)

**Microphone box****34-MIKBOX KG**

Active microphone box with:

- Operating display (LED)
- Read-out potentiometer for microphone sensitivity
- Connection option to:
  - Substation 309-LRM8
- Measurements (height x width x depth):  
90 x 90 x 50 mm (height incl. PG screw joint)

**Close-talking microphone****NM****Noise cancelling**

- With special microphone characteristics, suited for rooms with extremely high environmental noise level
- Usable for industrial units, these must be particularly prepared for it



**NOTA Emergency button for house alarm****NOTA-1**

- Built-in mushroom button for flush-mounting socket  
Diameter 60 mm (scope of delivery)
- Colour: red
- Design:
  - single contact catching (active closed)

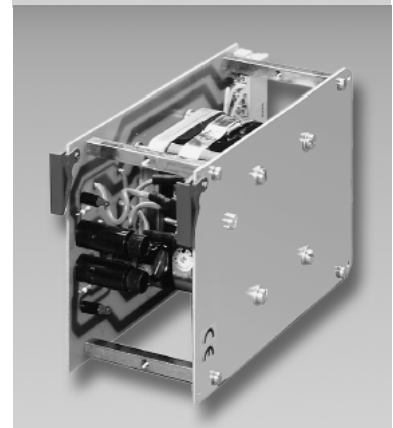
**Emergency button for house alarm****NOTA-2**

- Built-in mushroom button for flush-mounting socket  
Diameter 60 mm (scope of delivery)
- Colour: red
- Design:
  - double contact catching (active closed)

**Power supply unit 8V 5A****NT 8/5000 SSR**

Plug-in card exclusive for interface frame for the supply of external components, e.g. door openers

- Technical specifications:
  - primary: 230 V AC
  - secondary: 8V AC or DC uncontrolled  
5A
- also available as 24V 50VA or 15V 50VA

**Power supply unit 12V 1A****NT 12/1000 KG**

Power supply for the system components in the plastic housing complete with mains cable with plug

- Technical data:
  - primary: 230 V DC
  - secondary: 12 V DC controlled  
1A
- Measurements (height x width x depth):
  - 160 x 80 x 75 mm

**Power supply unit 12 V 5 A****NT 12/1000 KG**

Power supply for the system components in the plastic housing complete with mains cable with plug, e.g., door opener, festoon lamps and panelboards.

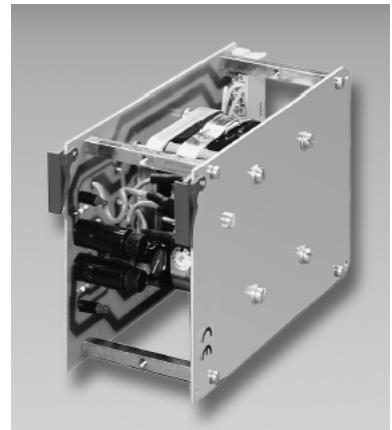
- Technical data:
  - primary: 160 - 230 V DC
  - secondary: 12 V DC controlled  
5A
- Measurements (height x width x depth):
  - 200 x 180 x 75 mm (length incl. Screwed connection with steel conduit thread)



**Power supply unit 15V 3,3A****NT 15/3300 SSR**

Plug-in card exclusive for interface frame for the supply of external components, e.g. door openers

- Technical specifications:
  - primary: 230 V AC
  - secondary: 15V AC or DC uncontrolled 3,3A

**Power supply unit 18V 0,4A****NT 18/400 SN**

Plug-in power supply unit for door unit cameras 327-x/KAM and 337-x/KAM

- Technical data:
  - primary: 230 V AC
  - secondary: 18 V DC controlled 0.4 A
- Measurements (height x width x depth without plug):
  - 105 x 65 x 50 mm

**Power supply unit 24V 0,5A****NT 24/500KG**

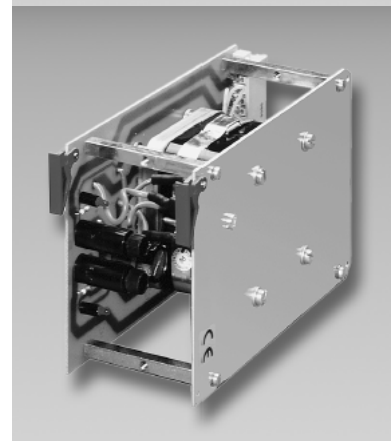
Power supply for system components in plastic housing comes complete with mains cable with connector, e.g. door units 308-64, 308-128, etc.

- Technical specifications:
  - primary: 230V AC
  - secondary: 24V DC controlled 0.5A
- Measurements (length x width x depth):
  - 120 x 120 x 55 mm

**Power supply unit 24V 2,1A****NT 24/2100 SSR**

Plug-in card exclusive for interface frame for the supply of external components, e.g. door openers

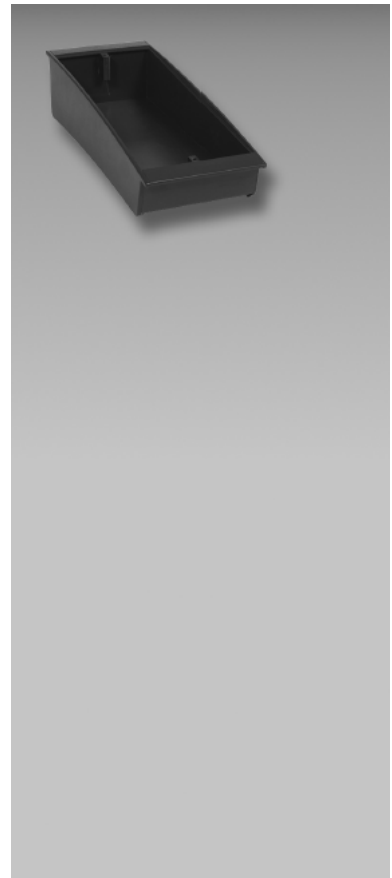
- Technical specifications:
  - primary: 230 V AC
  - secondary: 24V AC or DC uncontrolled 2,1A



**Desk-top housing**

- Usable for:
  - 303-E ae
  - 304-FLS
  - 304-FLSD
  - 304-TLS 28
  - 308-1E ae
  - 308-3E
  - 308-3E/SLS
  - 34-PKE
- Material:
  - plastic
- Colours:
  - anthracite
- Measurements (height x width x depth):
  - housing: 325 x 128 x 80 mm
  - distance between m.h.: 260 mm

PG 11/1

**Desk-top housing**

as PG 11/1, but double

- Measurements (height x width x depth):
  - housing: 325 x 248 x 80 mm
  - distance between m.h.: 260 mm

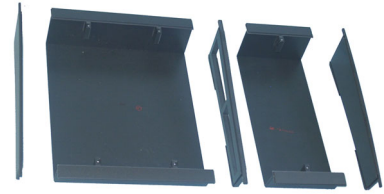
PG 11/2



**Desk-top housing**

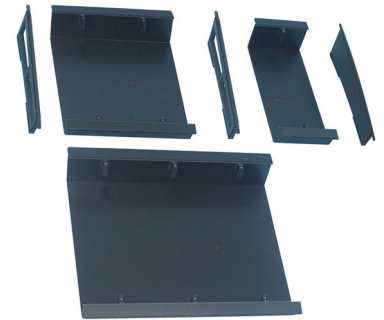
as PG 11/1, but triple

- Measurements (height x width x depth):
  - housing: 325 x 368 x 80 mm
  - distance between m.h.: 260 mm

**PG 11/3****Desk-top housing**

as PG 11/1, but quad

- Measurements (height x width x depth):
  - housing: 325 x 493 x 80 mm
  - distance between m.h.: 260 mm

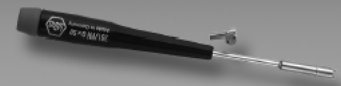
**PG 11/4****Desk-top housing**

as PG 11/1, but fivefold

- Measurements (height x width x depth):
  - housing: 325 x 613 x 80 mm
  - distance between m.h.: 260 mm

**PG 11/5****Special screwdriver**

for 2-slot safety screws M3

**SD-2L/M3****Special screwdriver**

for 2-slot safety screws M6

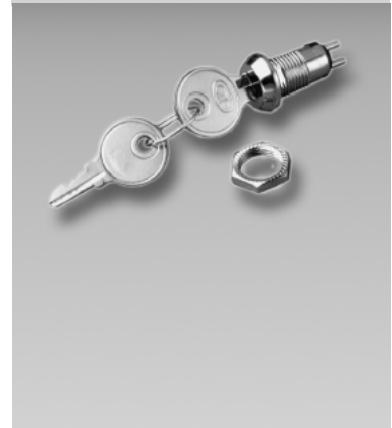
**SD-2L/M6**

**SH Swanneck microphone**

- With special microphone characteristics, suited for rooms with high environmental noise level
- Usable for following units with aluminium front panel:
  - 303-E
  - 308-1E
  - 304-FLS
  - 34-PKE
- Available lengths of swanneck:
  - 200 mm (SH 200)
  - 300 mm (SH 300)

**SH****Key switch**

- Prevents unauthorised use of units
- Special feature:
  - blocking key functions
  - listening and speaking function remain usable when called
- Mechanical variations are possible depending on the manufacturer

**SLS****Flush-mount box**

- Usable for:
  - 303-E
  - 308-1E
  - 308-3E
  - 308-3E/SLS
  - 313-E/UP
  - 318-1E/UP
- Special features: mountable in cavity walls
- Material: sheet steel
- Measurements (height x width x depth):
  - housing: 270 x 100 x 45 mm
  - distance between m.h.: 260 mm

**UPK 10**



**Flush-mount box**

- suitable for all installation points of HGA call system:
  - 308-EV
- Particular features:
  - Stainless steel frame for flush-mount installations
- Material:
  - steel sheet
- Measurements (height x width x depth):
  - Housing: 285 x 125 x 72 mm
  - distance between m.h. 270 mm

**UPK 31****Conversion kit for front panel attachment screws****US-2L/M3**

- Screw set consisting of two examples of not commercially available 2-slot safety screws M3
- Suitable for the substation for prison cells type 308-EV

**Conversion kit for front panel attachment screws****US-2L/M6**

- Screw set consisting of four examples of not commercially available 2-slot safety screws M6
- Suitable for industrial substation type 308-EV



**Wall bracket**

- Usable for master units:
  - 303
- Material
  - Sheet steel lacquered
- Colours:
  - white (ws)
  - grey (gr)

**WH-303**



**H PC control board software****Control board software****34-IT2**

With graphical configuration and user surface, can be operated under the operating systems Windows 98 or Windows NT 4.0.

As any unit, the control board can be connected with any subscriber output of the exchange.

**Configuration manager:**

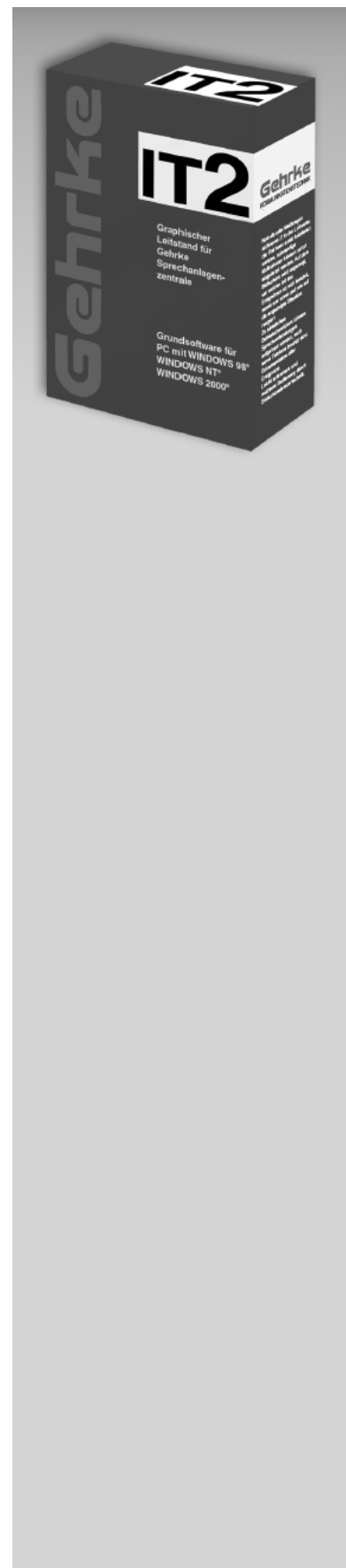
- online help window for the individual processing steps
- tie-in of customer-specific map files and signal symbols
- drag and drop symbol positioning
- customer-specific subscriber list for units and signalling contacts at graphical maps
- three priority levels per subscriber entry
- filing by storage and print-out
- individual signal designation
- handling text instructions on background for each symbol
- modifications during the running operation
- password protected
- simple operation
- subscriber-specific keypad configuration for type 34-RKC relay card

**Online program:**

- graphical user surface operates also in the background and is switched automatically to the foreground as soon as a new signal arrives
- all functions and information grouped in one window
- log-in for several users with individual user passwords
- integrated alphanumeric unit with intelligent keypad for individual connection setup
- display of all signals available in the unit
- call identification by symbols in graphical maps and text
- recording of all events can be configured selectively
- sorting and filtering function for storage of event database with print-out or report
- differentiation of signals according to priority and type (signals, door call, call-back request, emergency call, presence, wet cell, alarm)
- status display, lead monitoring and fault signals
- operation by mouse or keypad
- video fade-in, can be changed over to full screen size, if necessary, (video card required)
- connection to unit via serial PC interface (automatic recognition of interface)

**Accessories:**

control board built-in master unit 34-PKE



## I Programming and updating software

**Programming editor and interface****PROS-PED-ALPHA**

For service PC as programming terminal for alphanumeric unit

- Software runs on MS-DOS PC from V 2.1
- Range of supply:
  - 3 1/2" disk with editor software
  - adapter for master station connector
  - interface with connecting cable and plug-in power supply unit

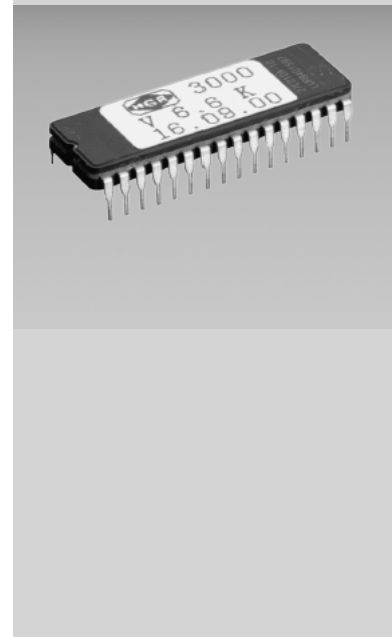
**Programming editor and interface****PROS-PED6**

For service PC as test and programming help for INTERCOM master stations with PRO 6 and PRO 6 M

- Software runs on MS-DOS PC from V 2.1 and Windows 98, 2000, XP
- Range of supply:
  - 3 1/2" disk with editor software
  - interface with cable 6 m for the connection of the PC with the master station

**Update operating system software****UD-Soft 2**

Updating of an older operating system to make use of new features. The EPROMs of the processor card PRO 6 must be replaced here.

**WINDOWS software update for PROS-PED6****PROS-PED6-Winupdate**

- Supplied as:
  - 3 1/2" disks

**J Programming packages and services**

Customer-specific programming of the terminal at the manufacturers, preparation of a fixed program on request

**Programming package 1**

Call number modification up to 32 subscribers; collective call exceptions; group call division; target calls from more than two sub-stations; up to 2 relays on relay card A

**34-PP1****Programming package 2**

Call number modification up to 64 subscribers, target calls from more than two sub-stations; more than two relays at relay card A; contact cards; relay cards B + C

**34-PP2****Programming package 3**

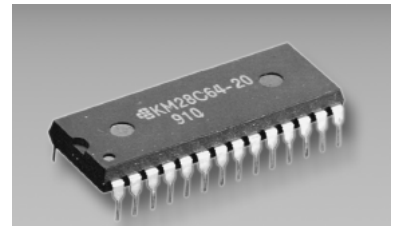
Hierarchical programming; conference programming; compound operation for two exchanges

**34-PP3****Programming package 4**

Compound operation programming per exchange for three and more exchanges

**34-PP4****Programming**

Programming of alphanumerical units acc. to customer's specifications at the manufacturer's per unit.

**34-PP-ALPHA**

**Programming****34-PP-IT2/LA**

Tie-in of a map in the user surface of the graphical control board 34-IT2 and entering the associated data into the list of subscribers and signals at the manufacturer's.

**Programming****34-PP-IT2/SA**

Inclusion of a symbol in the user surface of the graphical control board 34-IT2 and entering the associated data in the list of subscribers and signals at the manufacturer's.

**Programming****34-PP-IT2/LE**

Preparation of a map file from the documents of the customer at the manufacturer's for the graphical control board 34-IT2.

**Programming****34-PP-IT2/SE**

Preparation of a symbol file from the documents of the customer at the manufacturer's for the graphical control board 34-IT2.

**Programming****34-PP-S0**

Programming of a HGA ISDN interface acc. to customer's specifications at the manufacturer's.

**Programming****34-PP-TLS**

Programming of a control board keypad acc. to customer's specifications at the manufacturer's per control board module.

**Programming****34-PP-TWI**

Programming of a telephone dial interface acc. to customer's specifications at the manufacturer's.

**Programming package for police station systems**

Call number modifications up to 32 subscribers, target calls from cells, emergency call, door and sluice units; relay control systems, signal contacts; hierarchical levels; radio conferences; in-house emergency calls, ELA coupling

**34-POL1****Programming package**

As 34-POL1, but up to 64 subscribers and/or compound operation per exchange.

**34-POL2****Programming**

Programme changes according to customer specifications are effected at the manufacturer according to actual work.

**34-PROG****Setting into operation / instruction and training**

of the completely installed, ready-to-operate intercom as well as extensive instruction and training of the operating personnel and/or of a person authorised by the operator including the acceptance certificate is carried out according to actual work

**34-I/E**



**K Technical Information****Technical specifications MULTICOM 3000**

- Fuses
  - primary: 3.15 A semi time-lag (melting)
  - secondary: 3.15 A semi time-lag (melting) (18-V power supply)
- Power supply:
  - primary: 230 V, 50 Hz,  
60 / 150 VA normal operation / full load
  - internal electronics: + / - 5 V / +3.3 V
  - optional:
    - emergency power input: + 12 V / 0 V / - 12 V
  - emergency power batteries are not charged
  - subscriber output: + / - 18 V short-circuit proof
- Subscriber output:
  - power to 20 ohms: 4 W (nominal power at 1 kHz)
  - power to 150 ohms: 0.6 W (nominal power at 1 kHz)
  - non-linear distortion factor: < 1 % at 4 W
  - frequency range: 150 to 7,500 Hz
- Programme channel: 0 dB to 600 ohms
- Reaches:
  - master station / subscriber: 1,000 m Diameter 0.6 mm
  - tie line computer /  
master station: 4,000 m Diameter 0.8 mm
- Environmental temperature range: + 5× C to + 35× C
- Air humidity: max. 80 %
- Technical standards: with regard to safety and radio interference suppression it fulfils the standards:
  - EU directive 89/33 6/EWG
  - EN 50081 - 1 emitted interference
  - EN 50082 - 1 noise immunity

**Hints for installation**

1. The installation between the master station and the terminal equipment is effected with four leads in a star-shaped form with a paired telephone cable JY (St) Y 2 x 2 x 0.6. Non-quadded cable may result in speech and data transfer problems.

For loudspeakers without talk-back option, two leads suffice.

2. At every subscriber output of the MULTICOM 3000, 4-Watt-AF-power at 20 ohms impedance are available. Hence, the MULTICOM can solve any tasks of acoustic irradiation. If, however, more than 20 % of the available subscriber outputs are planned to be connected to 4-Watt-loudspeakers, one additional power supply has to be provided for.
3. At one subscriber output of the MULTICOM, up to 20 terminals can be operated via a bus controller. The installation, which can be up to 1,000 m long, is carried out with JY (St) Y 2 x 2 x 0.6. In the bus, a 3-pair cable is required.
4. In tie line operation, master stations can be installed in different locations. The distance between the tie line controller and a master station can be up to 4,000 m long. The connection in the case of a noncentralised arrangement is with JY (St) Y 8 x 2 x 0.6 mm, in the case of a centralised arrangement with preformed flat band lines.
5. With tie line traffic via EURO-ISDN, the distance between the ISDN interface and the master station can be 1,000 m.
6. It is recommended that no other consumers (such as telephones, fax machines, door openers, etc.) be led through the cable as well and that the cable not be laid in the immediate vicinity of high voltage lines.
7. Please take into consideration that with regard to the mentioned cable lengths the cable lengths actually laid - and not the distance between the individual terminals - is of importance.