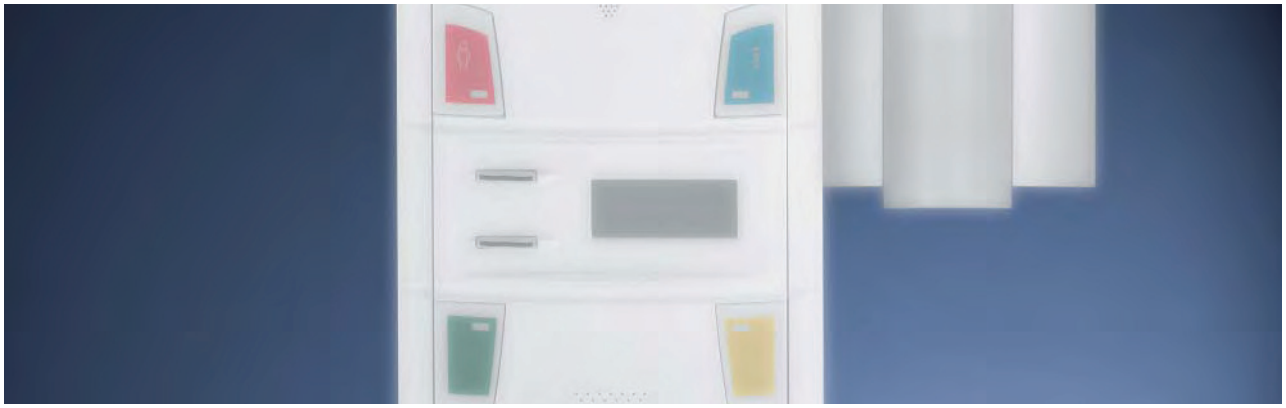

Clino System 99

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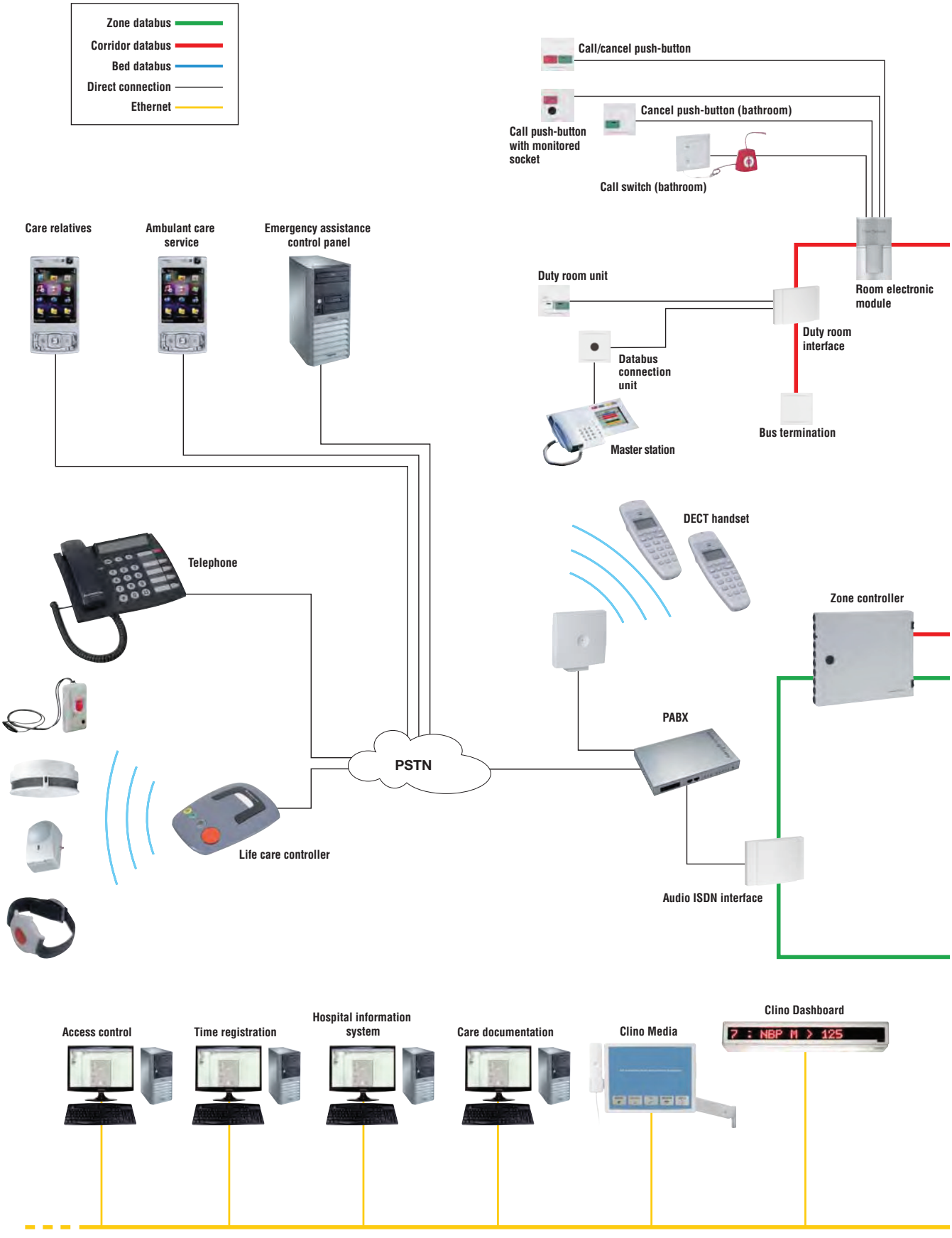
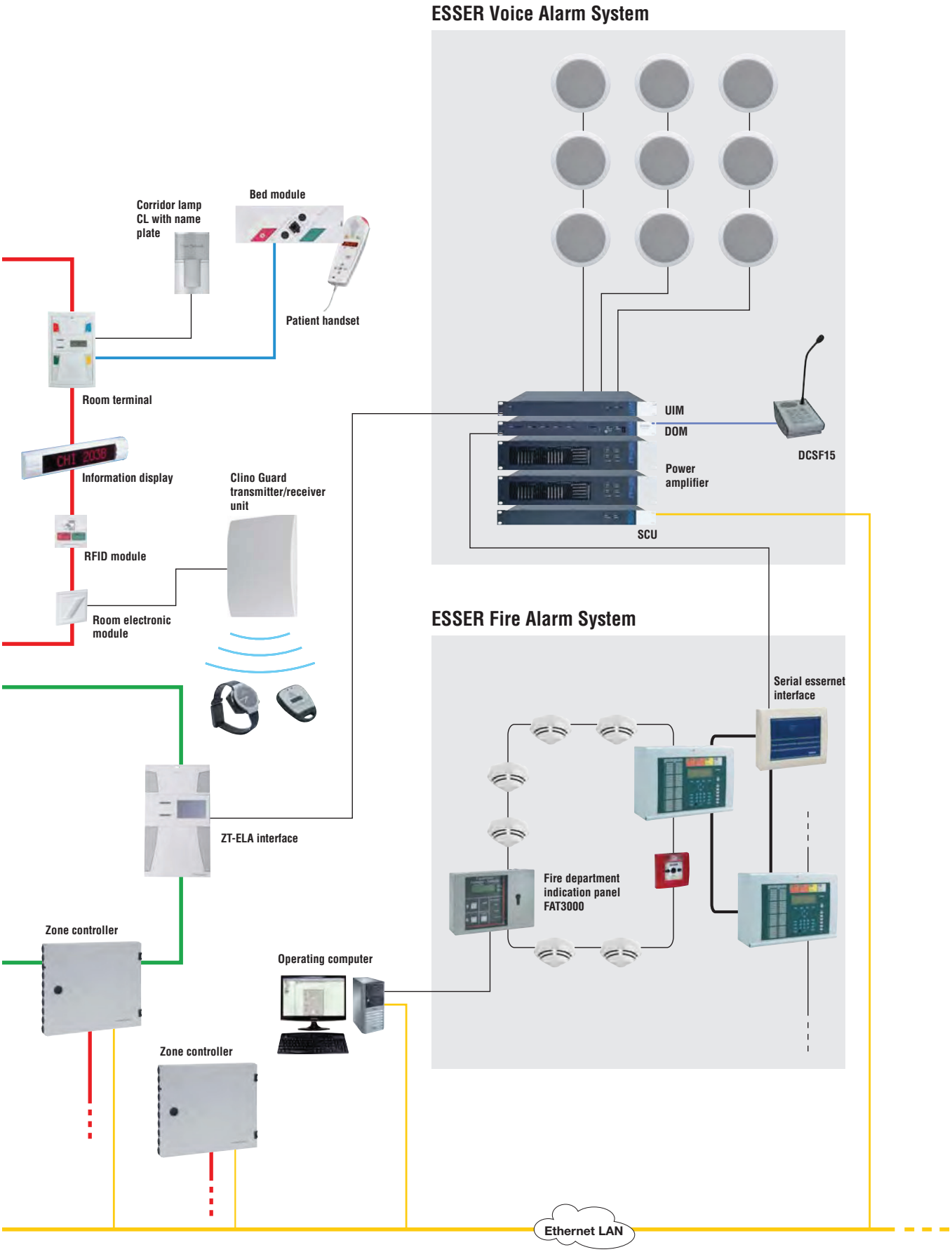
Clino System 99




ESSER Voice Alarm System
Corridor lamp CL with name plate
Bed module
Patient handset
Room terminal
Information display
RFID module
Room electronic module
Clino Guard transmitter/receiver unit
ZT-ELA interface
Zone controller
Zone controller
Operating computer
UIM
DOM
Power amplifier
SCU
DCSF15
ESSER Fire Alarm System
Serial essernet interface
Fire department indication panel FAT3000
Ethernet LAN

General

The Clino System 99 is the scaleable communications system of Ackermann by Honeywell to meet all requirements ranging from conventional optoacoustic call systems to highly integrated system solutions with digital speech transmission and multimedia at the patient's or resident's bedside. The Clino System 99 complies with current standards and specifications for call systems as stipulated in the DIN VDE 0834: 2000-04.

System concept

Built on the proven Clino Phon 99 concept, the system is largely downwards compatible and allows for long-term migration of the Clino Opt 99 and Clino Phon 95 systems. In addition to conventional call system features, the Clino System 99 provides further functions for process support as well as contact less personalized system control (e.g. activation of presence) and cost-efficient integration of alternative maintenance and support concepts care / nursing homes, patient hotels as well as for in-house/home emergency call systems. Besides easy start up, the option of networking stations via the IP network as well as connection via the public telephone network are new performance features which facilitate planning, set-up and servicing of the Clino System 99. The system designed for maximum safety and error tolerance is based on a 3-level hierarchy:

•Room level:

Operating, control and display elements (call push-button, cancel push-button, bed module, corridor lamp, etc.) to single rooms are connected directly or via the bed databus to the respective room electronics such as room terminals and electronic modules. The bed databus connects the active components in the rooms such as the bed electronics, the RFID module, the call modules and the display modules. In addition to simple installation, the bed databus provides configurable individual identification of messages and calls. Passive call elements such as call push-buttons, pull switches and cancel push-buttons with quiescent current monitoring are connected directly to the electronic modules and room terminals.

•Floor level:

Room electronics as well as components for entire floors like corridor displays, direction lamps, interface units, etc. are connected via the corridor databus to the respective zone controller. Up to 127 modules like information displays, electronic modules and room terminals can be connected to the corridor databus. The total number of addressable modules per corridor databus is limited to a maximum of 255 including all bed databus modules (bed electronics, call modules, display modules, etc.).

•Building level:

Zone controllers as well as central devices such as control panels, system interfaces (e.g. to hazard alert systems, alarm servers, paging systems and telecommunications systems) are connected with each other via the ward databus. The zone controllers can also be linked via Ethernet. Up to 64 zone controllers can be operated in a system, so that a theoretical system size of more than 8,000 rooms divided into 6 logical zones (nursing areas) can be realized, which equals up to 250 logical zones per control center. The ward databus devices monitor each other, the components connected via the corridor databus and themselves to provide maximum system stability.

Horizontal networking (at room and floor level) of the system is performed primarily via the reliable communication databus of the call system, which provides for efficient setup. Vertical networking of the zone controllers can be performed either using the proven POF/HCS fiber optic networks or via standard IP networks (IEEE802.3). This makes it possible to set up networks throughout buildings or a campus and perform call transmission via telephone line (PSTN). With its logical monitoring of the implemented infrastructure and the system components as well as its use of distributed intelligence, the Clino System 99 always provides maximum safety.

Features

The Clino System 99 is set up as an information and communication platform for professional nursing facilities and supports the nursing organization with reliable and convenient process support system technology. It is modular and scalable. It includes a full range of options which can be extended subsequently from optoacoustic call signalization and configurable plain text displays to systems for digital voice communication and mobile call handling. The available system interfaces permit integration of almost all alarm and security systems, thus providing the nursing staff a homogeneous information medium, in which responsibilities, priorities and escalation routines are stored for the respective service situations and can easily be displayed by the nursing staff. The high level of user acceptance is based on the excellent security, the functions supporting the nursing process and the intuitive operating concepts.

The zone controller controls the display messages, flashing cycles of the room and group signal lamps as well as acoustic call notification. The messages are distinguished according to different call classes (alarm call, emergency call, call) depending on the priority. In addition to special call types as control room calls and phone calls, the system can distinguish between up to 23 freely definable call types (e.g., door call, dementia alarm, service call) and thus allows for individual call handling according to the user's requirements. In addition to this, configurable inputs and interface units with cycle recognition allow for convenient integration of external maintenance units and alarm contacts as well as connection with third-party systems. An audio channel is available for each zone controller, which allows for communication between nursing staff and patients or visitors (in combination with a door intercom system). The zone controllers can be installed centralized or decentralized depending on individual requirements.

In combination with a DECT system, the audio interface enables mobile call answering using mobile devices (DECT, WLAN, GSM) as well as the new functions "clip to call" (coupling and handling of telephone emergency calls) and "call to phone" (forwarding of calls from the call system to the telephone network). Special audio coupling modules are also available for integration of Clino Phon 95 systems and connection of radio systems or voice alarm systems.

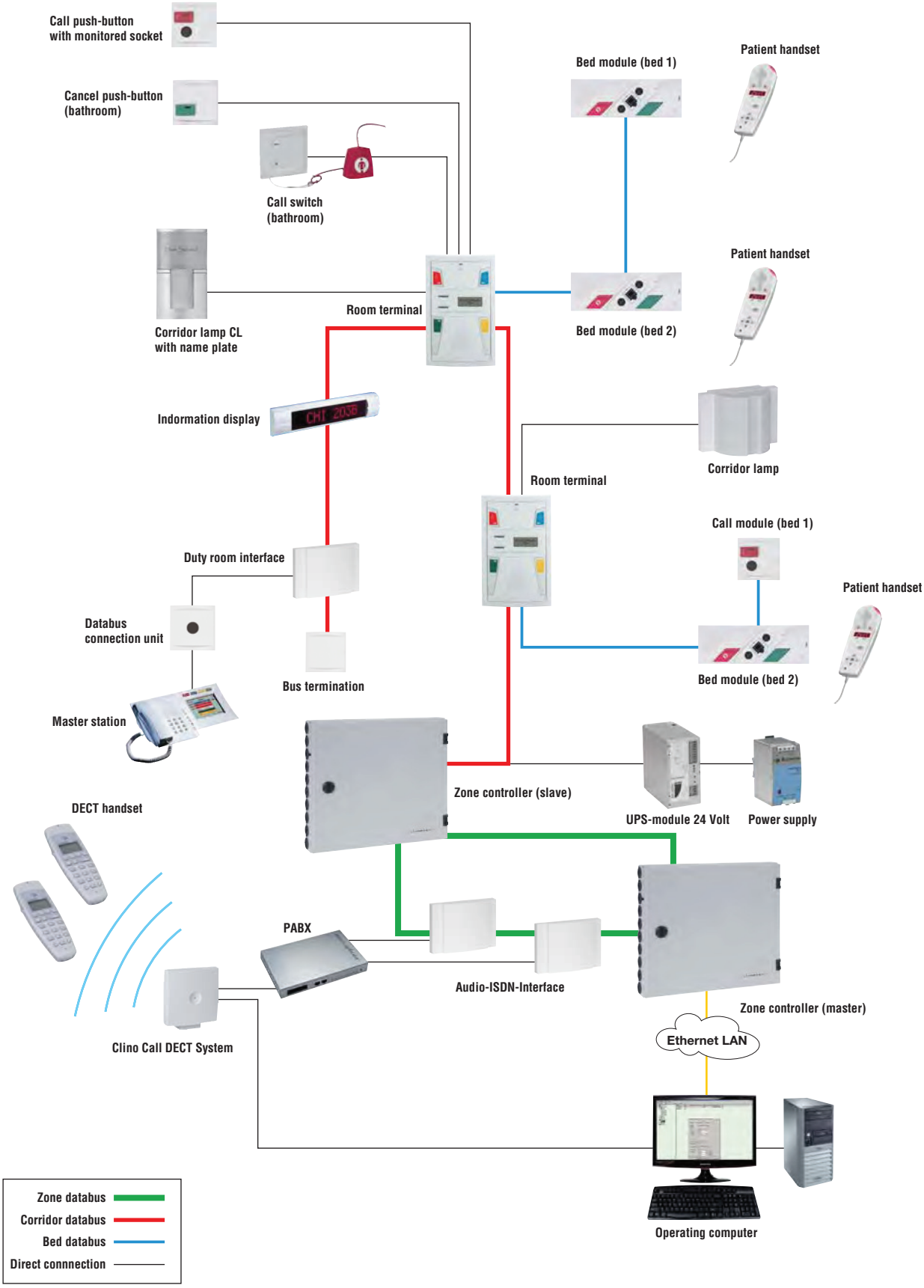
The workstation is used for configuration, call logging and as a system interface to hazard alert, information and communication systems (e.g., fire alarm systems, alarm servers, paging systems). An Ethernet LAN interface is used for connection to the zone controllers. The zone controllers can be installed centralized or decentralized depending on individual requirements.

The information displays and dashboard devices provide specific information to the nursing staff. Depending on individual requirements, plain text messages can be displayed on monochrome or two-colored dot matrix displays. This is connected directly via the corridor databus (information display) or, for the dashboard devices, via LAN. It is controlled using a dedicated software application, which is also able to interpret and display data from monitoring and telemetry systems.

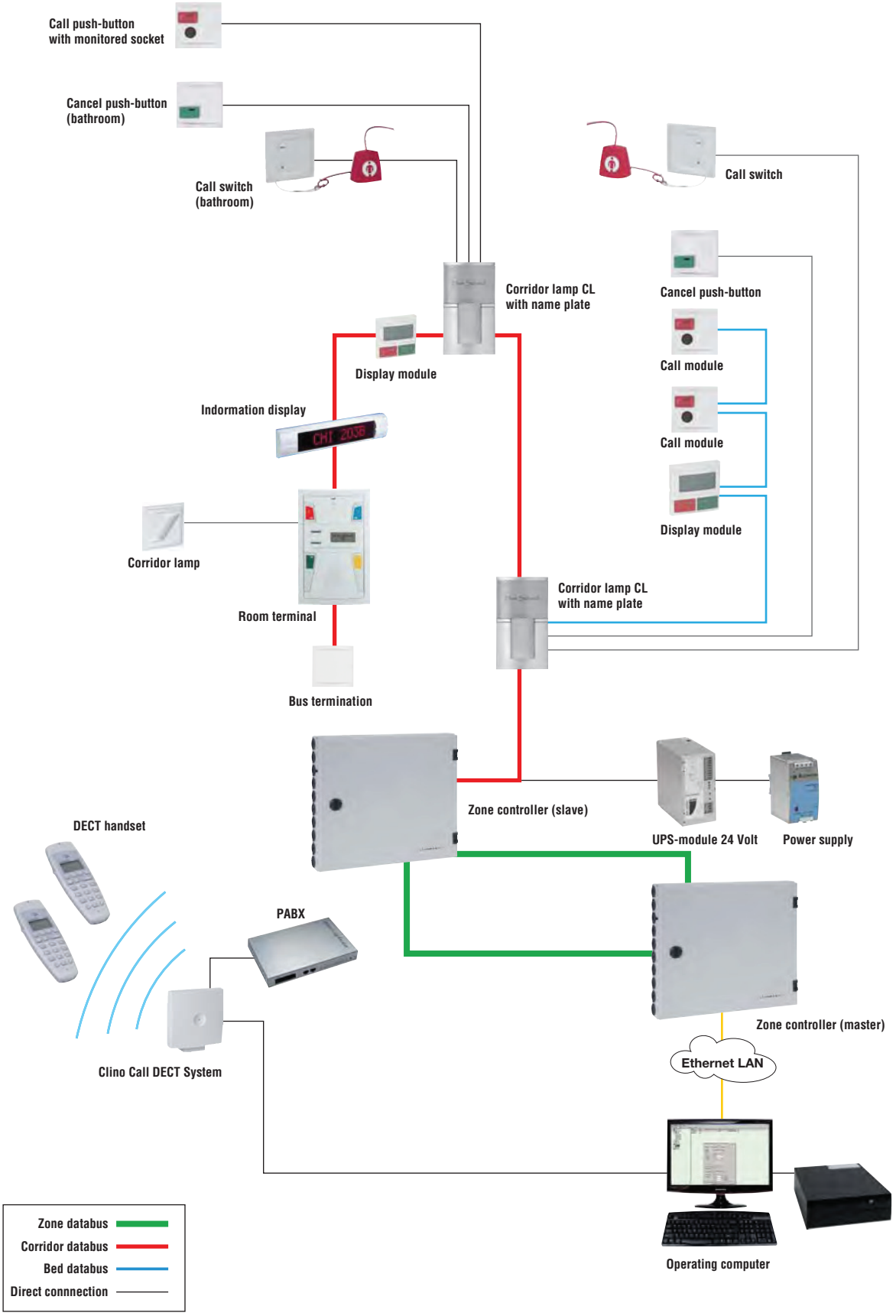
Room electronics (electronic module, room terminal, duty room interface, master station)
The room terminal or the electronic module in rooms without speech communication is responsible for controlling all call functions of a room as well as the emergency function in the case of zone controller malfunctioning or line interference. Standard features include call identification, call notification and a presence feature with call forwarding to the nursing staff. Room terminals provide for efficient nursing organization by permitting speech communication with patients or inhabitants and between nursing staff. Displayed calls can be acknowledged using function keys, but calls can be cancelled from remote workstations in contrast to emergency calls and alarm calls, which cannot be cancelled. Furthermore, the room terminal or the electronic module includes all terminals for room wiring. This includes the operating elements bedside, in the bathroom and, for the room terminal, the corridor lamp. This is already integrated in the electronic module. The duty rooms are equipped with a master station for controlling organization processes. These are integrated in the network via a duty room interface. As an alternative, room terminals can be configured to provide duty room functions such as zone linking and announcements. For systems without speech, universal display modules are available as control units for duty selection / zone linking.

The RFID module enables personalized system operation without contact, e.g., setting/deleting of presences or triggering dedicated call notifications. Depending on the equipment, simple applications such as access control can also be realized.

System overview with speech

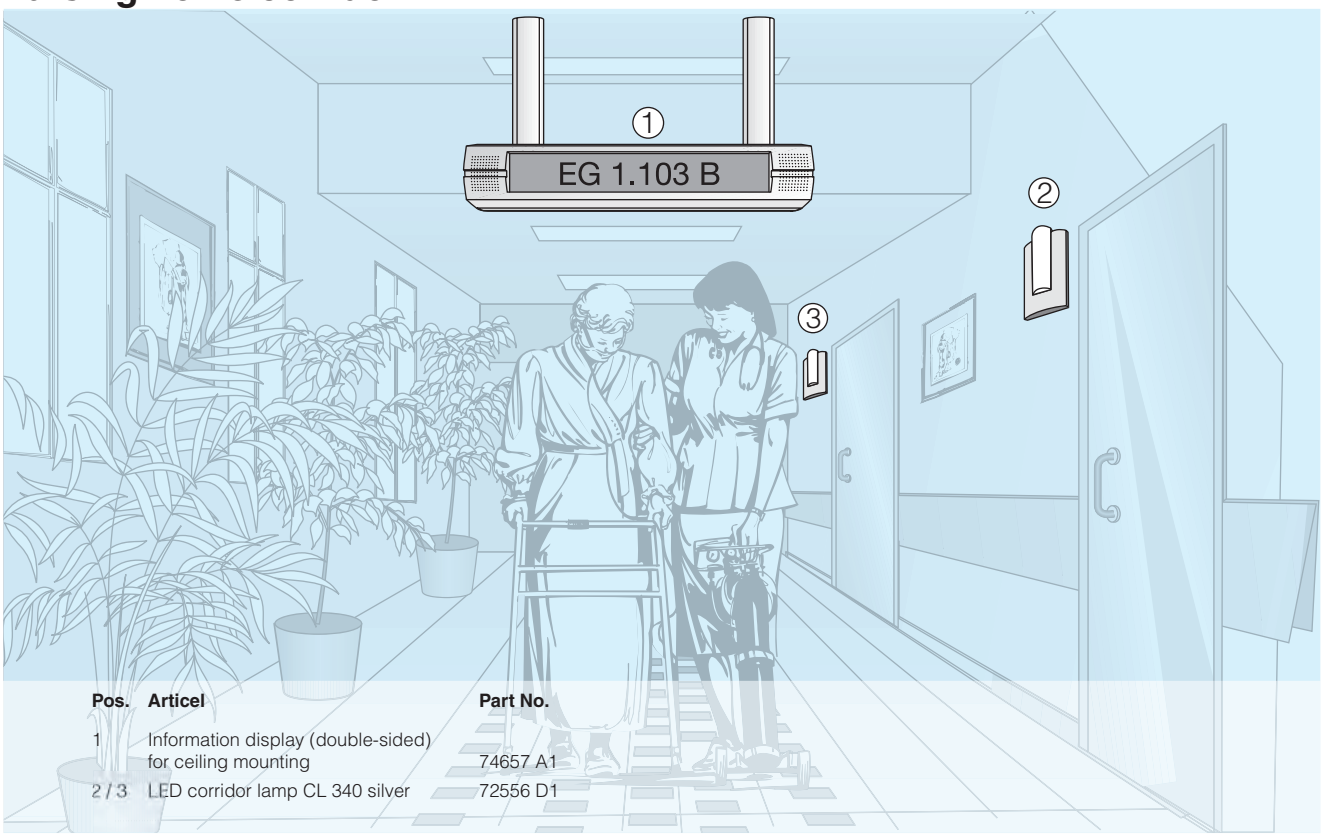


System overview without speech



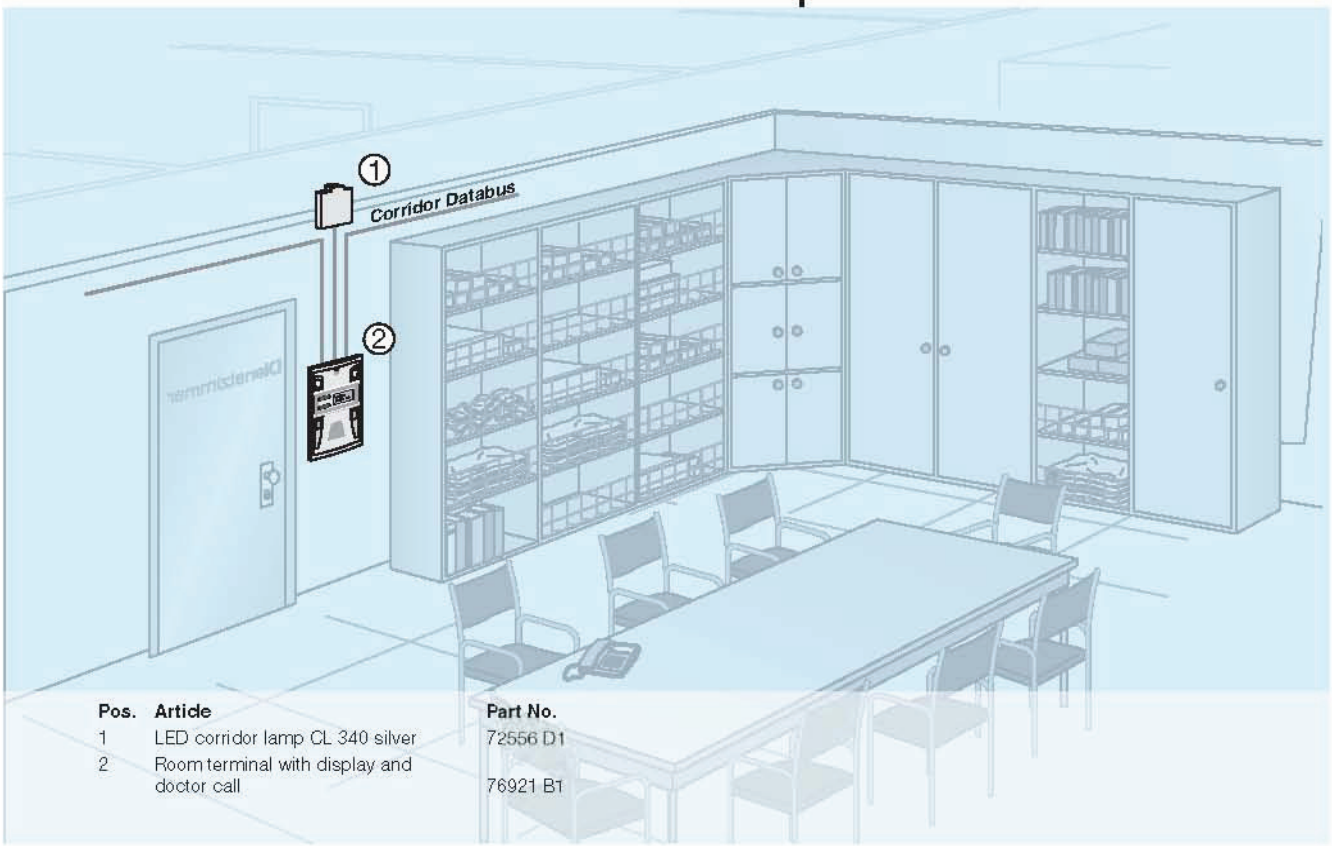
Accessories for the listed items can be found in the following sections!

Nursing home corridor

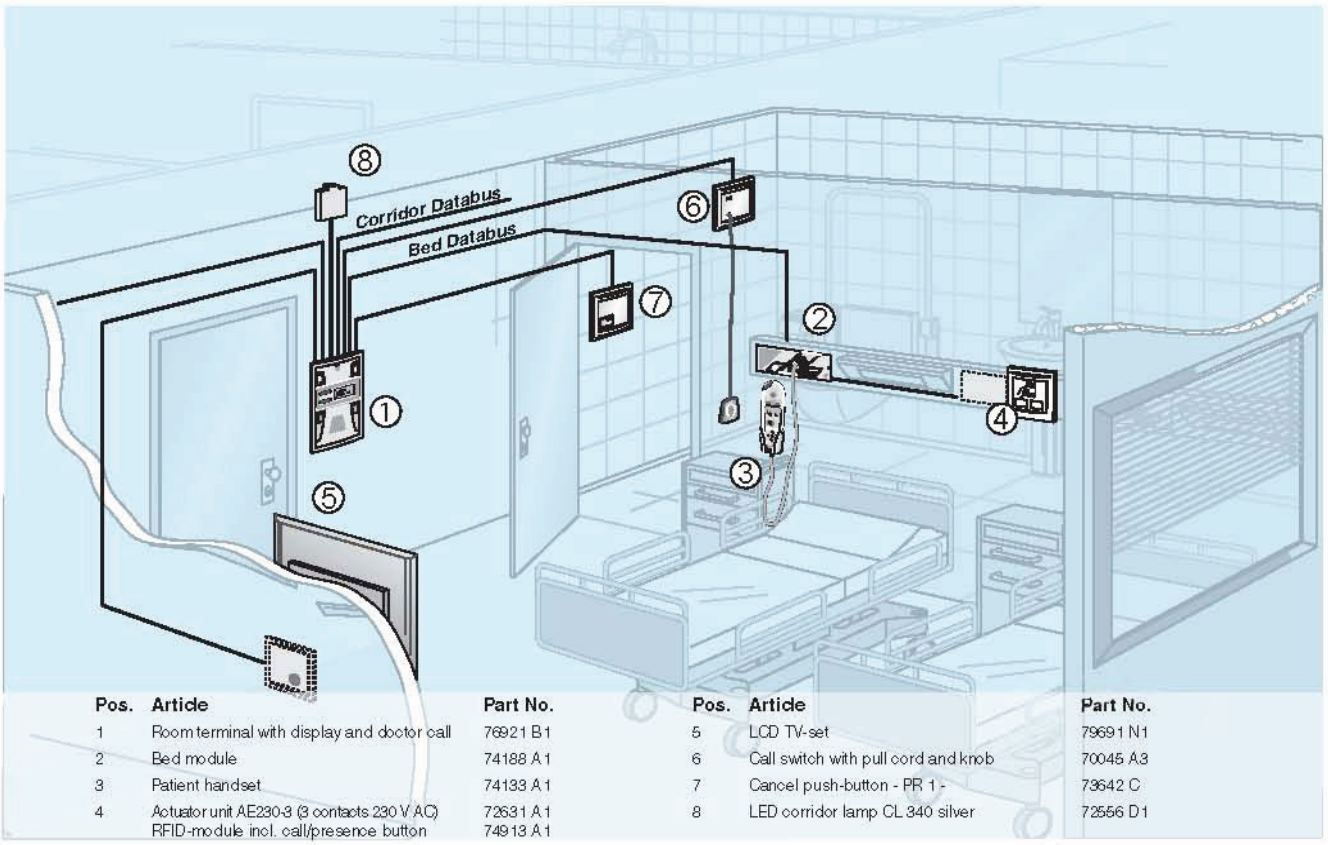


Pos.	Articel	Part No.
1	Information display (double-sided) for ceiling mounting	74657 A1
2 / 3	LED corridor lamp CL 340 silver	72556 D1

Common room / Patient room with discreet speech

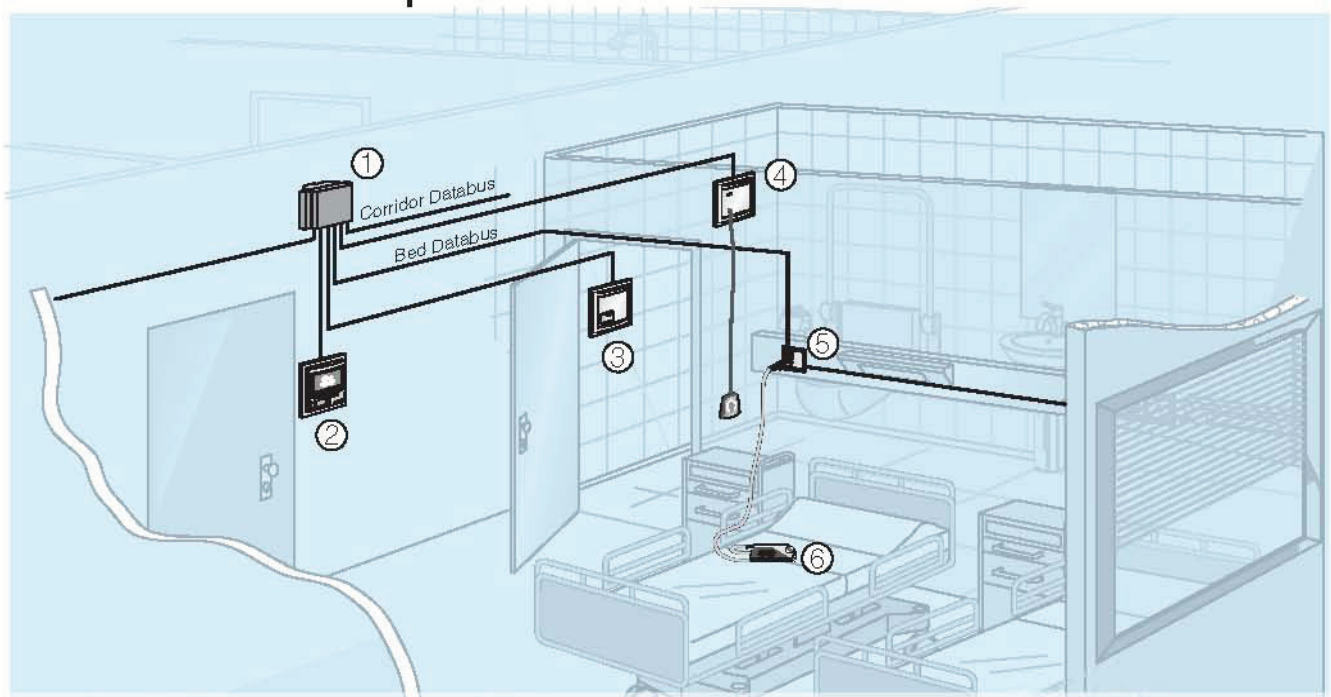


Pos.	Article	Part No.
1	LED corridor lamp CL 340 silver	72556 D1
2	Room terminal with display and doctor call	76921 B1

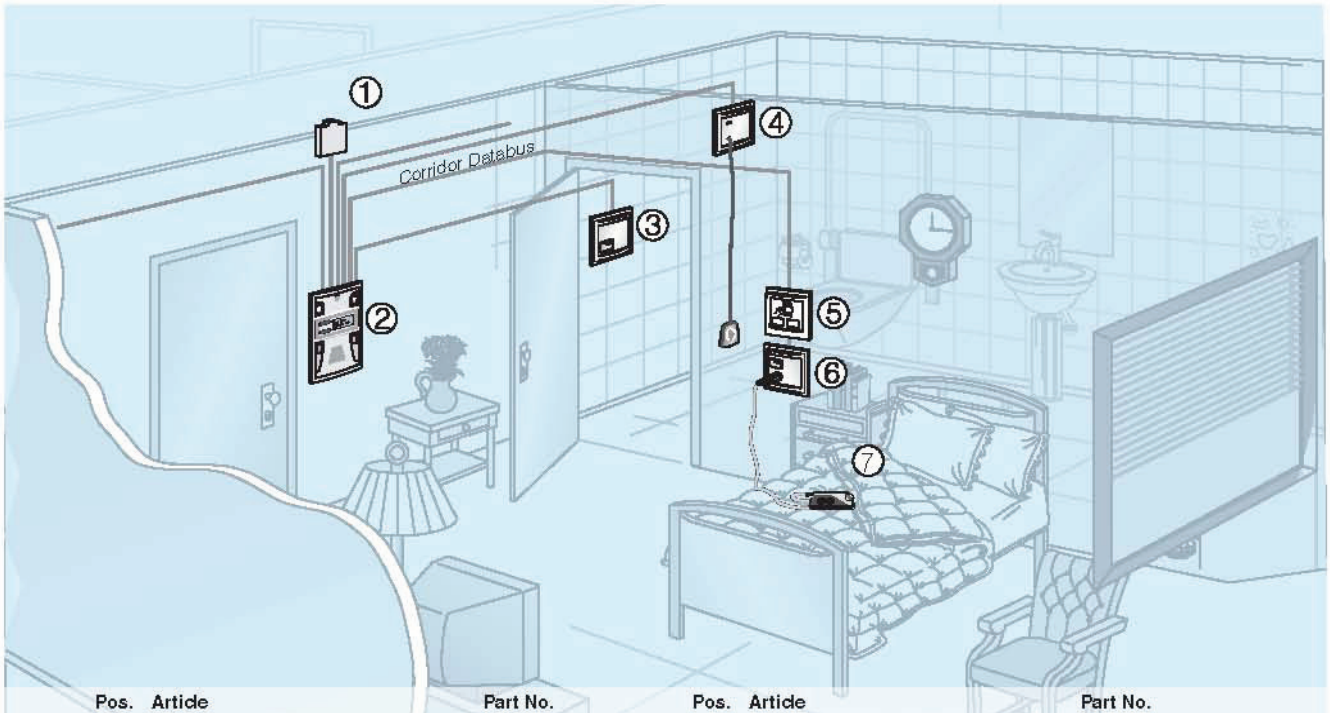


Pos.	Article	Part No.
1	Room terminal with display and doctor call	76921 B1
2	Bed module	74188 A1
3	Patient handset	74133 A1
4	Actuator unit AE230-3 (3 contacts 230 V AC) RFID-module incl. call/presence button	72631 A1 74913 A1
5	LCD TV-set	79691 N1
6	Call switch with pull cord and knob	70045 A3
7	Cancel push-button - PR 1 -	73642 C
8	LED corridor lamp CL 340 silver	72556 D1

Patient room without speech / Resident room

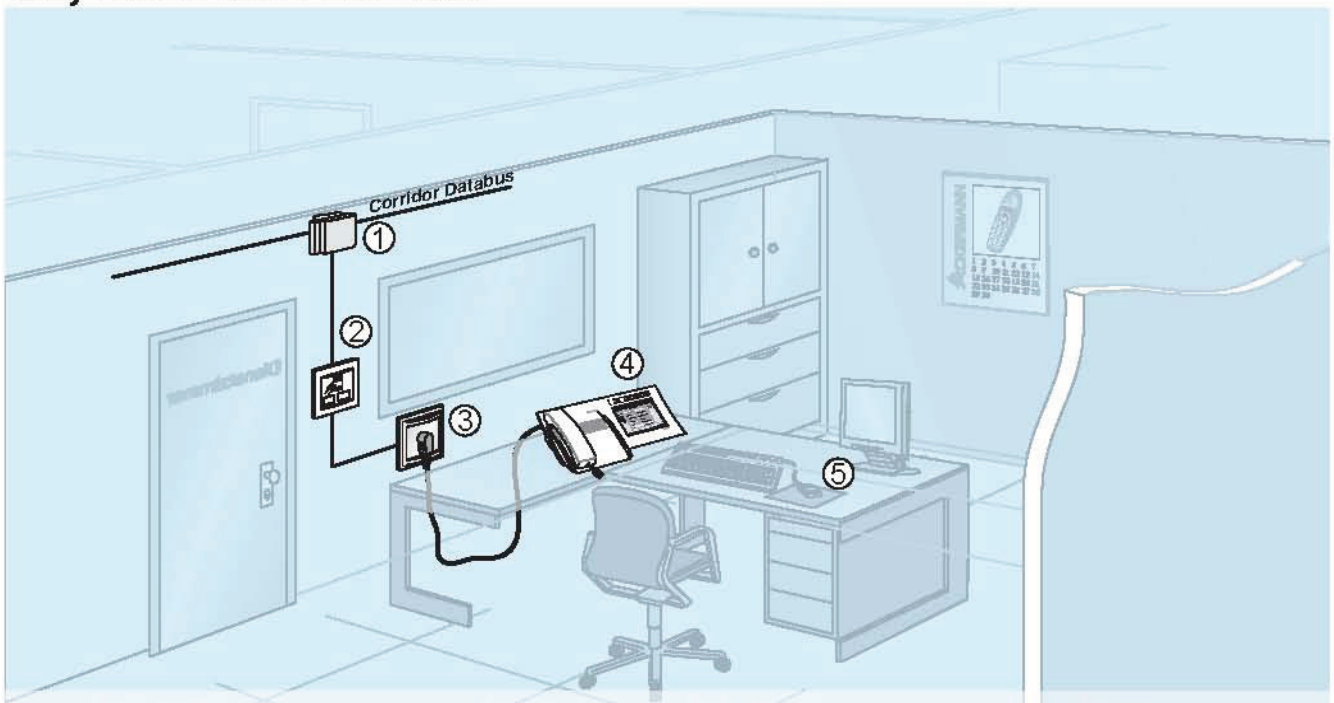


Pos.	Article	Part No.	Pos.	Article	Part No.
1	Room electronic module 99 (3 lamps) with bed databus	72571 P1	4	Call switch with pull cord and knob	70045 A3
2	Display module for bed databus	74910 C5	5	Call module with push-button and 1 monitored socket	73073 E3
3	Cancel push-button - PR 1 -	73642 C	6	Multiple push-button (NCC) 7-pin plug, 2 light button, 3 m	74153 B1

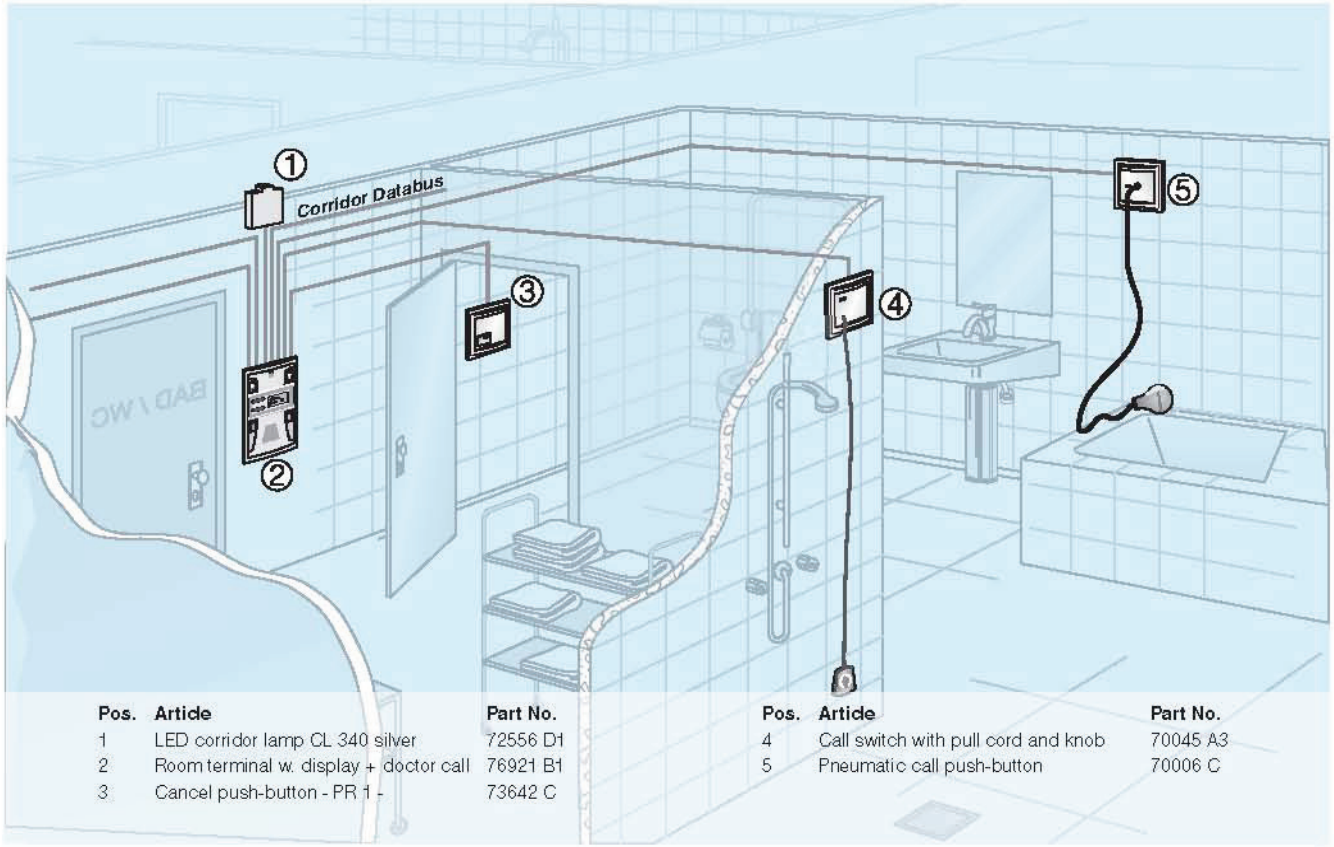


Pos.	Article	Part No.	Pos.	Article	Part No.
1	LED corridor lamp CL 340 silver	72556 D1	5	RFID-module incl. call/presence button	74913 A1
2	Room terminal w. display + doctor call	76921 B1	6	Call module w. push-button and 1 socket	73073 E3
3	Cancel push-button - PR 1 -	73642 C	7	Multiple push-button (NCC) 7-pin plug, 2 light button, 3 m	74153 B1
4	Call switch with pull cord and knob	70045 A3			

Duty room / Ward bathroom

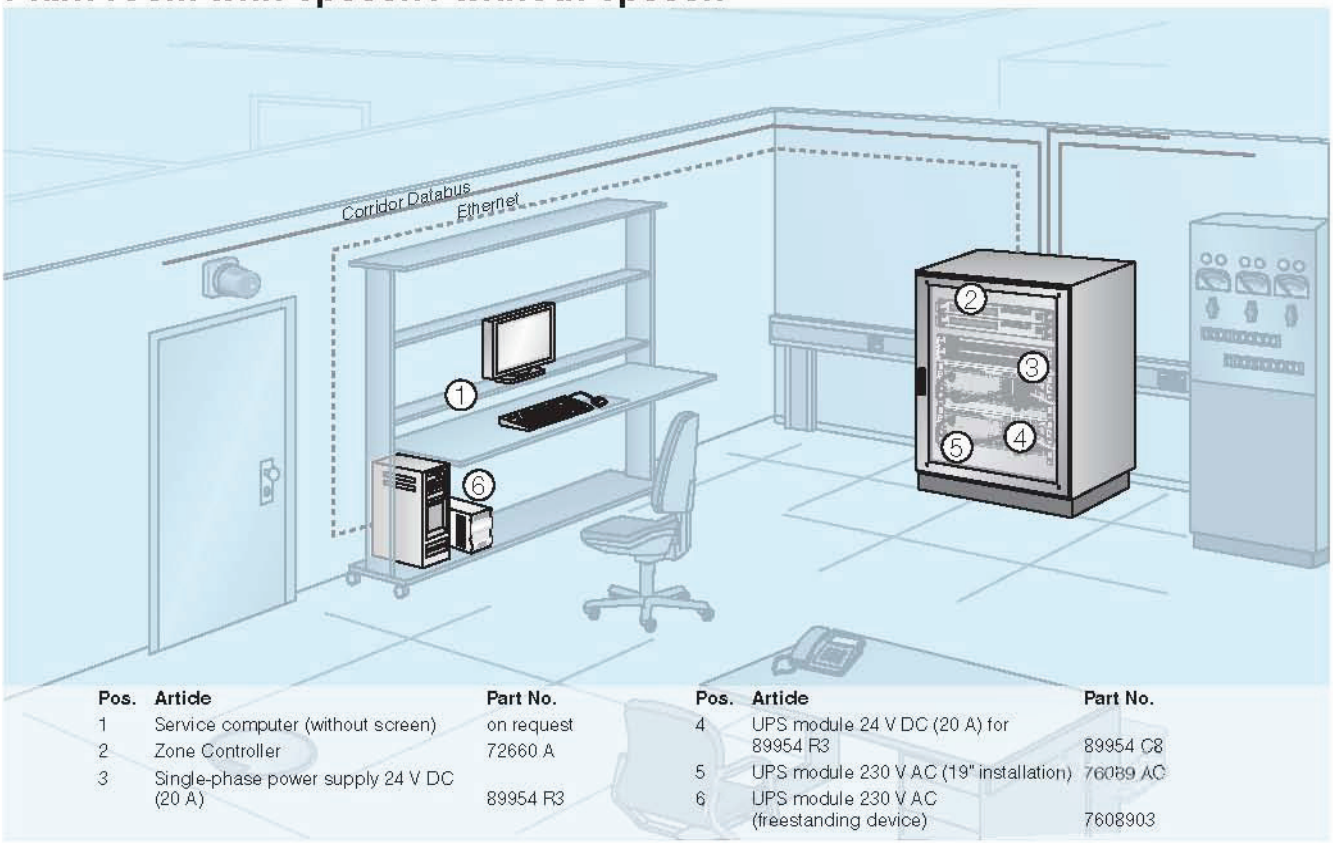


Pos.	Article	Part No.
1	Duty room interface (4 lamps), white	72583 A1
2	RFID-module incl. call/presence button	74913 A1
3	Databus connection unit for master station	73070 A
4	Master station	74422 A1N
optional:		
5	Operating computer with software module	on request

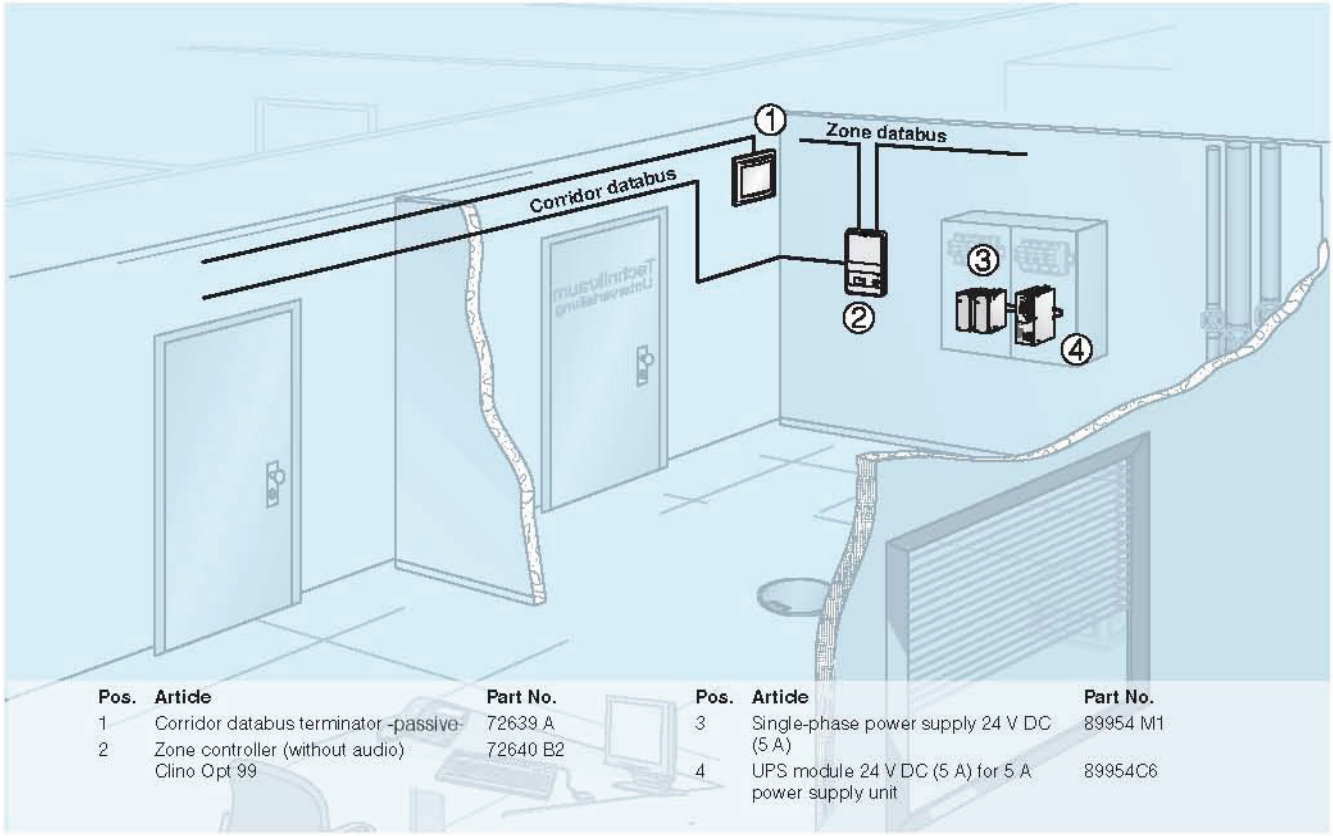


Pos.	Article	Part No.
1	LED corridor lamp CL 340 silver	72556 D1
2	Room terminal w. display + doctor call	76921 B1
3	Cancel push-button - PR 1 -	73642 C
4	Call switch with pull cord and knob	70045 A3
5	Pneumatic call push-button	70006 C

Plant room with speech / without speech



Pos.	Article	Part No.	Pos.	Article	Part No.
1	Service computer (without screen)	on request	4	UPS module 24 V DC (20 A) for 89954 R3	89954 C8
2	Zone Controller	72660 A	5	UPS module 230 V AC (19" installation)	76089 AC
3	Single-phase power supply 24 V DC (20 A)	89954 R3	6	UPS module 230 V AC (freestanding device)	7608903



Pos.	Article	Part No.	Pos.	Article	Part No.
1	Corridor databus terminator -passive-	72639 A	3	Single-phase power supply 24 V DC (5 A)	89954 M1
2	Zone controller (without audio) Clino Opt 99	72640 B2	4	UPS module 24 V DC (5 A) for 5 A power supply unit	89954C6

System upgrade from Clino Phon 95 to System 99

For expansion and retrofitting Ackermann has developed a comprehensive migration concept for the linking of Clino Phon 95 and Clino System 99. The entire communication system can serviced as one standardized system without output losses - a great relief in daily routine of care-giving.

In the course of successive renovation of a nursing ward for example, the Clino Phon 95 and a newly installed Clino System 99 can be used together after finishing a restructuring or expansion. This principle is not only transferable to smaller units but also to entire building complexes. The nursing staff and patients would only notice different patient handsets and room terminals of the two different systems. Zone connections on one floor carried out in off-peak times for example, can be handled independently in all wards after using the system migration concept.

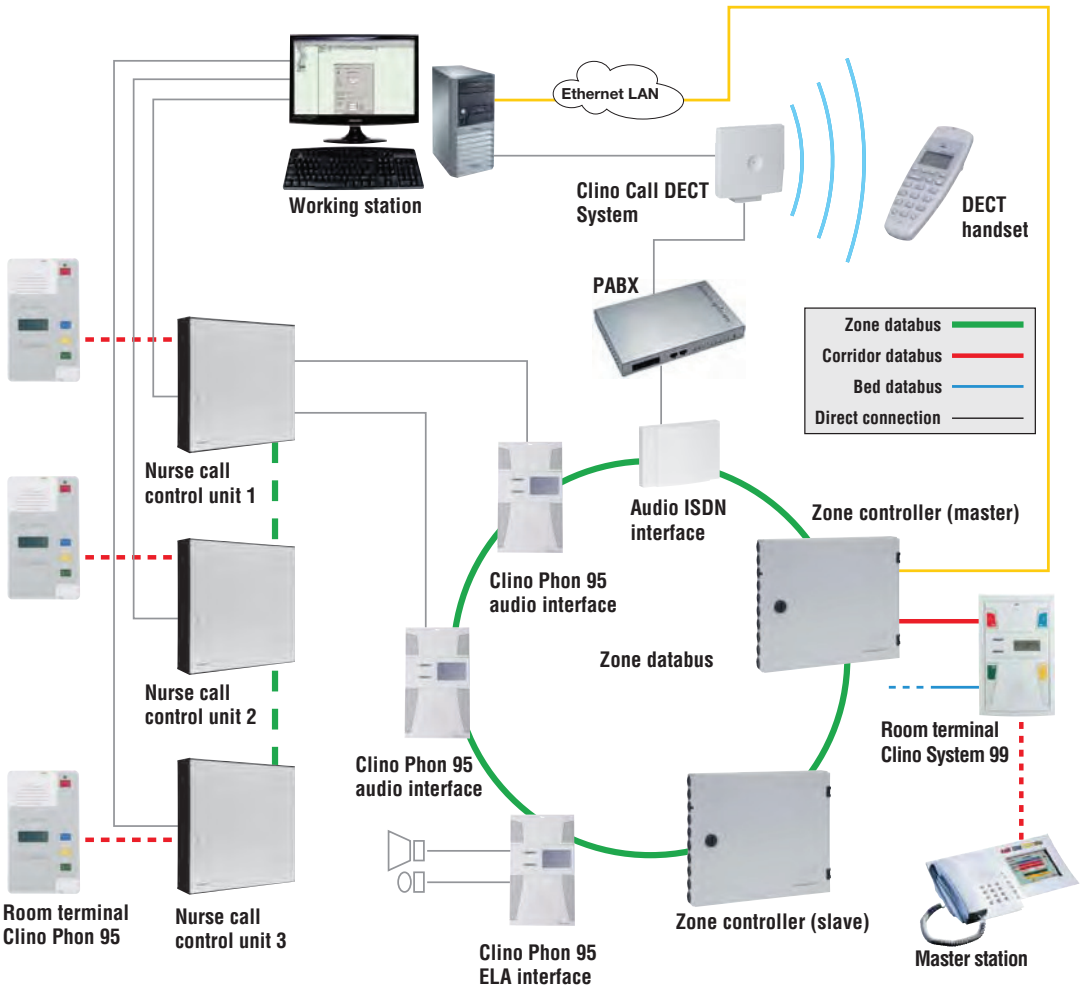
Special software and hardware modules mediate between the old and new systems ensuring full functionality on both systems.

For example:
- Display of system messages
- Call query
- Additional query / communication between staff
- Ward announcement function
- Freely programmable zone linking

Intelligent interface units guarantee full functionality:
- Innovative loop technology for system coupling
- Audio interfaces for connecting analog and digital speech functions
- Software modules as mediators between the systems

Ackermann solutions provide you with integrative security and flexibility despite highly complex organizational structures.

Contact us to find a solution for your facility and we will implement this solution together.



72660A Zone Controller

Features

- Digital audio bus with 1 speech channel for communication within the ward
- Data exchange with others zone controllers via the zone databus or ETH-LAN
- Audio communication across zones only via the zone databus
- Service functions: Software download, remote maintenance (in combination with connected Clino System 99 workstation)
- Networking of up to 64 zone controllers via POF or HCS cable or ETH-LAN
- Up to 6 subzones for each zone controller
- Central and decentralized installation
- Safety characteristics:
- Data retention in the case of power failure (UPS according to DIN VDE 0834 required)
- 1 relay contact for collective messaging of fault reports within a zone
- 4 freely configurable inputs
- Electrical isolation from other zone controllers via POF or ETH connection
- LED status display as well as an LCD with 2 x 8 characters

Zone controller as a control unit for an organizational unit such as a ward or residential area, management of up to 127 active system components on the corridor databus such as room terminals, room electronic modules, information displays and other units. Use of a corridor databus repeater required for 64 or more active system components.

The corridor databus of a zone controller can be divided into up to 6 subzones. The zone controller monitors and synchronizes the entire data flow as well as the audio connections (speech, announcements) within the organizational unit and coordinates communication to other zone controllers. It also controls display messages and acoustic call notification according to specified priorities and services (zone linkings) within a system.

Up to 64 zone controllers with up to 250 logical zones (subzones) can be used in a Clino System 99. Zone controllers are networked either via the ward databus (data/audio) or via the ETH interface (data only) and can be installed either centralized or decentralized. A primary zone controller establishes connection to the higher-level workstation via ETH-LAN and controls escalation of messages within the whole system. Project specific planning of the central control equipment is required for projects with more than 500 rooms.

Technical Data

Operating voltage	21.6 ... 26.4 V DC
Current consumption	max. 546 mA
Quiescent current @ 24 V DC	234 mA
Ambient temperature	5 °C ... 55 °C
Material	powder-coated sheet steel (cover)
Fixation	surface mounting or installation in 19” distribution cabinet
Weight	approx. 3220 g
Dimensions	W: 340 mm H: 300 mm D: 50 mm

Installation in separate connection board for surface mounting or mounting in 19" cabinet

Connection cable for zone controller

Ethernet networking of zone controllers planned to be available in Q2 2010.

Accessories

72660Z1 Connection board sm for zone controller
72660Z2 Connection board 19" for zone controller

72660C System 99 CL Zone Controller

As 72260A, but max. 4 zone controllers can be connected. Each zone controller supports up to 50 active units within the corridor databus.

Technical Data

Operating voltage	21.6 ... 26.4 V DC
Current consumption	max. 546 mA
Quiescent current @ 24 V DC	234 mA
Ambient temperature	5 °C ... 55 °C
Material	powder-coated sheet steel (cover)
Fixation	surface mounting or mounting in 19” distribution cabinet
Weight	approx. 3220 g
Dimensions	W: 340 mm H: 300 mm D: 50 mm

Ethernet networking of zone controllers planned to be available in Q2 2010.

72660D System 99 CL Zone Controller

As 72260A, but max. 2 zone controllers can be connected. Each zone controller supports up to 100 active units within the corridor databus.

Integration into separate connection board with optional surface mounting or in 19" cabinet

Connector cable for zone controller

Ethernet networking of zone controllers planned to be available in Q2 2010.

Accessories

72660Z1 Connection board sm for zone controller
72660Z2 Connection board 19" for zone controller

72660Z1 Connection board for sm zone controller

Sm connection board for easy installation of Clino System 99 zone controller and connection cables. The connection board must be mounted as a surface mount housing. Cable bars are integrated for structured cabling.

Technical Data

Type of protection	IP 20
Fixation	surface mounting
Color	grey, similar to RAL 7035
Dimensions	W: 340 mm H: 300 mm D: 60 mm

72660Z2 Connection board (19") for System 99 zone controller

19" distributor cabinet connection board for easy assembly and installation of Clino System 99 zone controller and connection of related cables. The connection board is designed for installation in 19" distributor cabinet. Cable bars are integrated for structured wiring.

Technical Data

Type of protection	IP 20
Fixation	mounting in 19" distribution cabinet
Color	grey, similar to RAL 7035
Dimensions	W: 483 mm H: 44 mm D: 340 mm

72581B1 Audio ISDN Interface

Features

- Interfaces
- Zone databus for digital data and audio transmission
- S0 interface for connection to the ISDN telecommunication network or a telecommunications system with Euro ISDN standard (DSS1)
- Service socket to connect analysis tools as well as status LEDs
- Fastening
- The module is plugged on the accompanying connection board with a quick-release fastener. It is surface mounted with a switch box.

Audio ISDN interface as an audio interface between the Clino System 99 and a conventional telecommunications system with ISDN connection technology. During configuration up to 10 multiple numbers (MSN) can be assigned to the audio ISDN interface.

Function mode "Call query"
- Possibility to query system messages using mobile terminal devices (e.g. DECT, WLAN, GSM) via an ISDN connection to the telecommunications system
- In the case of incoming system messages (e.g. calls, emergency calls, alarm calls), the available callback numbers (from the MSN pool) are assigned dynamically according to configuration of the zone controllers. Optional connection software (item 83WE130 or 83WE140) is used to inform the receiver (e.g. DECT handset) of the callback number, which allows automatic connection by pushing a button when using the Clino Call DECT system

Function mode "Call to phone"
- Option for automatic or bed specific selective forwarding of system messages (e.g. calls, emergency calls, alarm calls) to an external telecommunications connection for further call handling.
- Phone number transmission of the MSN to the external telecommunications connection for identification of the call-triggering subscriber. Voice communication after call acceptance, e.g. via emergency assistance control center or GSM cellular phone.
- Support for security options like minimum talk time and alternative escalation option.
- During configuration 1 participant (room) is assigned to a multiple subscriber number (MSN) of the audio ISDN interface. Maximum 10 subscribers for each audio ISDN interface are possible.
- Call forwarding depending on the triggered call type and the active service / connection. This function requires that the telecommunications system and the network carrier support the CLIP feature.

Up to 8 units can be integrated in a system's zone databus as central components.

Technical Data

Operating voltage	24 V DC
Current consumption	400 mA
Type of protection	IP 40
Material	PC + ABS - FR
Color	white, similar to RAL 9016
Weight	approx. 171 g
Dimensions	W: 157 mm H: 109 mm D: 45 mm

Accessories

72582Z1 Connection board for duty room interface - white

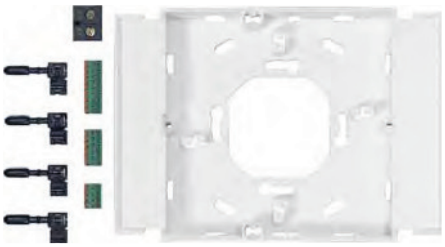
72661D Converter POF-Cu System 99 / 21

Dual converter POF-Cu for active conversion of 2 POF connection lines (e.g. System 99 Zone Controller) onto one 2-wire optical fiber waveguide connection. Various lengths can be bridged depending on the type of cable used. With automatic line monitoring in compliance with DIN VDE 0834.

Technical Data

Operating voltage	24 V DC
Current consumption	270 mA
Range	with multimode cable 50/125µ: max. 1,000 m
Application temperature	0 ... 55 °C
Material	ABS
Installation	surface mounting
Color	grey, similar to RAL 7035
Weight	approx. 2000 g
Dimensions	W: 290 mm H: 280 mm D: 64 mm

72582Z1 Connection board for duty room interface - white



Technical Data

Material	PC + ABS - FR
Color	white, simialr to RAL 9016
Dimensions	W: 152 mm H: 110 mm D: 20 mm

Connection board, connection terminal set

74188T1 Door communication interface BM99-TS

Door communication interface for integration of a door communication module in the call system. The door communication interface serves as a gateway between a combined speaker / microphone / call push-button and the controlling room terminal. Optional connection of up to 8 active modules (incl. door intercom module) via the bed databus to a room terminal. For example a door opener can be controlled via a separate control output in combination with the actuator unit. Possible length restrictions for supply lines are to be considered.

Features

Components:
- 1 call push-button (red) with LED reassurance lamp and orientation light
- 1 cancel push-button (green) with LED confirmation lamp
- Buttons can be disabled via programming

Inputs/outputs:
- Door call input
- Actuator output

Functions:
- Triggering of door call (e.g., in combination with a combined speaker / microphone / call push-button)
- Transmission of speech and data to controlling room terminal
- Control function for door opener, for example, via a separate control output in combination with an actuator unit (after conversation)

Technical Data

Ambient temperature	5 °C ... 55 °C
Type of protection	IP 40
Material	PC + ABS - FR
Version	for sm, fm and cavity wall installation
Color	white, similar to RAL 9016
Weight	approx. 170 g
Dimensions	W: 228 mm H: 81 mm D: 45 mm (AP / incl. bed module)

Accessories

74174A1 Surface mounted connection board for BM99 or BM99-TS
74174B1 Flush mounted connection board for BM99 or BM99-TS
74174C1 Cavity wall connection board for BM99 or BM99-TS
74174D1 MSU connection board for BM99 or BM99-TS
89734PA System cable for actuator databus POF
7693105 Door communication module
72631D1 AE230-2 actuator unit free (2 floating contacts)

72661C POF patch cable

3 m POF patch cable to connect 2 subscribers on the zone databus (e.g. zone controller, audio ISDN interface).

2 pieces

76961A1 ZT-AK audio interface

The ZT-AK audio interface serves as a basic device for bidirectional audio coupling of the systems Clino Phon 95 and Clino System 99. The ZT-AK acts as a media gateway for the digital transmission of the Clino System 99 and the analog audio signals of the Clino Phon 95.

The unit is networked with other system components like the zone controller Clino System 99 via the zone databus. The audio channel of the ZT-AK can be used for the "call query", "auxiliary query" and "collective announcement" services. In addition to this, the audio coupling interface AKI has to be implemented for 2 ZT-AKs in each case.

Technical Data

Dimensions	L: 250 mm W: 145 mm H: 37.5 mm (incl. sm connection board)

Incl. 1 POF patch cable for integration in the zone databus

Accessories

76959A1 Surface mounted connection board for room terminal
76959B1 Flush mounted connection board for room terminal
76959D1 Cavity wall connection board for room terminal

76961B1 ZT-EK ELA interface

The ZT-EK ELA interface serves as a basic device for radio coupling of the Systems Clino Phon 95 and Clino System 99 with a Voice Alarm System. The ZT-EK converts the analog audio signals of the external radio system to the digital transmission technology of the Clino System 99.

The unit is networked with other system components like the zone controller Clino System 99 via the zone databus. The radio channel of the ZT-EK is used for connecting external "collective announcements" and can be directed towards predefined, selective destinations.

Technical Data

Dimensions	L: 250 mm W: 145 mm H: 37.5 mm (incl. sm connection board)

Incl. 1 POF patch cable for integration in the zone databus

Accessories

76959A1 Surface mounted connection board for room terminal
76959B1 Flush mounted connection board for room terminal
76959D1 Cavity wall connection board for room terminal

76959A1 Surface mounted connection board for room terminal

Surface mounted connection board for room terminal as a room distributor with plug-in terminals for power supply, passive room components and corridor lamp. The connection board includes overvoltage protection elements for outgoing room wiring. The supply terminals are connectable screw terminals and all other connections are designed as plug-in terminals. To simplify wiring, the connection board is equipped with cable conduit for residual FOC lengths. A flush mounted switch box is required for cable routing.

Technical Data

Material	PC + ABS - FR
Installation	surface mounting
Color	white, similar to RAL 9016
Dimensions	L: 250 mm W: 145 mm H: 37.5 mm

Connectable screw terminals for up to 2 x 2.5 mm ² Cu wire end sleeve, separately shielded supply for components in the room such as bed combination, call module, etc. via connectable miniature terminals, max. wire cross-section 0.5 mm ².

76959B1 Flush mounted connection board for room terminal

As 76959A1, but as flush mounted connection board for room terminal.

Technical Data

Material	PC + ABS - FR
Installation	flush mounting
Color	white, similar to RAL 9016
Dimensions	L: 280 mm W: 175 mm H: 15 mm (incl. frame)

Connectable screw terminals for up to 2 x 2.5 mm ² Cu wire end sleeve, separately shielded supply for components in the room such as bed combination, call module, etc. via connectable miniature terminals, max. wire cross-section 0.5 mm ².

76959D1 Cavity wall connection board for room terminal

As 76959A1, but as cavity wall connection board for room terminal.

Technical Data

Material	PC + ABS - FR
Installation	cavity wall installation
Color	white, similar to RAL 9016
Dimensions	L: 280 mm W: 175 mm H: 15 mm (incl. frame)

Connectable screw terminals for up to 2 x 2.5 mm ² Cu wire end sleeve, separately shielded supply for components in the room such as bed combination, call module, etc. via connectable miniature terminals, max. wire cross-section 0.5 mm ².

72665A Audio coupling interface (AKI)

AKI is used as a basic device for the level adaptation for up to 2 audio channels of audio coupling of the systems Clino Phon 95 and Clino System 99. As a media gateway, the AKI adapts the analog audio signals from the Clino Phon 95 to the audio level of the ZT-AK of the Clino System 99.

The audio channels of the AKI can be used for the "call query", "auxiliary query" and "collective announcement" services.

Technical Data

Type of protection	IP 40
Material	PC + ABS - FR
Fixation	surface mounting or top-hat rail mounting
Color	white, similar to RAL 9016
Dimensions	W: 182 mm H: 110 mm D: 34 mm

72642C Corridor databus splitter / repeater / terminator -active-

Databus switch/repeater allows for junction in corridor databus and can be used as an amplifier.

Technical Data

Type of protection	IP 40, when installed incl. according cover plate
Fixation	in flush-mounting box, DIN 49073
Dimensions	W: 71 mm H: 71 mm

Two units are required for the corridor databus in the Clino System 99 - one for the data line and one for the audio line.

Accessories

88910A3 Cover plate - blank

72639A Corridor databus terminator -passive-

The databus terminator serves as a terminating module with the corresponding impedance for the corridor bus.

Technical Data

Type of protection	IP 40, when installed incl. according cover plate
Fixation	in flush-mounting box, DIN 49073
Dimensions	W: 71 mm H: 71 mm

Accessories

88910A3 Cover plate - blank

88910A3 Cover plate

Cover plate with self-locking snap connection, suitable for cover plate frame.

Technical Data

Material	PC + ABS - FR
Color	white, similar to RAL 9016
Dimensions	W: 68 mm H: 68 mm

Accessories

88914A3 Mounting frame for cover plate (single)
88914B3 Mounting frame for cover plate (double)
88914C3 Mounting frame for cover plate (triple)

Interface unit

72641A2 Contact interface

Clino System 99 contact interface unit for conecting the system to an existing nurse call system or external systems via floating contacts. Depending on the configuration, up to 4 inputs and 4 outputs can be used. In the Clino System 99, this interface serves as a control unit interface serves as a control zones indicator lamps.

Technical Data

Type of protection	IP 40
Material	PC + ABS - FR
Fixation	surface mounting or top-hat rail mounting
Color	white, similar to RAL 9016
Dimensions	W: 182 mm H: 110 mm D: 34 mm

Accessories

72641Z1 Connection board for contact interface

72641Z1 Connection board for contact interface

Accessories

88899A Additional fastener for top-hat rail mounting

Power supply units and UPS modules

89954M1 Single-phase power supply 24 V DC (5 A)

Single-phase power supply unit (5 A) for constant direct current supply to the nurse call system. Compact construction using modern primary clocked circuit technology (according to EN 6100-3-2) suitable for top-hat rail mounting in sub-distribution. Using the assembly kit (safety cover) 89954 MA, wall mounting is also possible outside sub-distribution. The output of the power supply unit is idling-, overload- and short-circuit proof.

Technical Data

Rated voltage	220 - 240 V AC (switchable to 100 - 120 V AC)
Rated frequency	47 ... 63 Hz
Output voltage	24 ... 28 V DC
Output current	5 A
Storage temperature	-25 °C ... 85 °C
Type of protection	IP 20
Version	for top-hat rail mounting in sub-distribution
Air humidity	20 - 80%
Weight	approx. 752 g
Dimensions	W: 64 mm H: 124 mm D: 102 mm

Accessories

89954MA Safety cover and mounting set for power supply unit (5 A)
89954C6 UPS module 24 V DC (5 A) for 5 A power supply unit

89954R2 Single-phase power supply 24 V DC (10 A)

Single-phase power supply unit (10 A) for constant direct current supply to the nurse call system. Compact construction using modern primary clocked circuit technology (according to EN 6100-3-2) suitable for top-hat rail mounting in sub-distribution. Using the assembly kit (safety cover) 89954 MB, wall mounting is also possible outside sub-distribution. The output of the power supply unit is idle-, overload- and short-circuit proof.

Technical Data

Rated voltage	220 - 240 V AC (switchable to 100 - 120 V AC)
Rated frequency	47 ... 63 Hz
Output voltage	24 ... 28 V DC
Output current	24 V/10 A, 28 V/8,6 A
Storage temperature	-25 °C ... 85 °C
Type of protection	IP 20
Version	for top-hat rail mounting in sub-distribution
Air humidity	20 - 80%
Weight	approx. 1195 g
Dimensions	W: 120 mm H: 124 mm D: 102 mm

Accessories

89954MB Safety cover and mounting set for power supply unit (10 A)
89954C7 UPS module 24 V DC (10 A) for 10 A power supply unit

89954R3 Single-phase power supply 24 V DC (20 A)

Single-phase power supply unit (20 A) for constant direct current supply to the nurse call system. Compact construction using modern primary clocked circuit technology (according to EN 6100-3-2) suitable for top-hat rail mounting in sub-distribution. Using the assembly kit (safety cover) 89954 MC, wall mounting is also possible outside sub-distribution. The output of the power supply unit is idle-, overload- and short-circuit proof.

Technical Data

Rated voltage	200 - 240 V AC (switchable to 100 - 120 V AC)
Rated frequency	47 ... 63 Hz
Output voltage	24 ... 28 V DC
Output current	24 V/20 A, 28 V/18 A
Storage temperature	-25 °C ... 85 °C
Type of protection	IP 20
Version	for top-hat rail mounting in sub-distribution
Air humidity	20 - 80%
Weight	approx. 1800 g
Dimensions	W: 220 mm H: 124 mm D: 102 mm

Accessories

89954MC Safety cover and mounting set for power supply unit (20 A)
89954C8 UPS module 24 V DC (20 A) for 20 A power supply unit

89954MA Safety cover and mounting set for 5 A power supply unit

Mounting kit (safety cover) for 5 A power supply for wall mounting of power supplies outside a sub-distribution.

Technical Data

Color	grey, similar to RAL 7035

Including top-hat rail

89954MB Safety cover and mounting set for 10 A power supply unit

Mounting kit (safety cover) for 10 A power supply for wall mounting of power supplies outside a sub-distribution.

Technical Data

Color	grey, similar to RAL 7035

Including top hat rail

72583A1 Duty room interface (4 lamps), white

Features

- Room calls: Normal call, emergency call, diagnostic call, doctor call
- Cancellation and presence: Combined cancellation/presence, PR1 (green)
- Acoustic signals: Call transfer for normal call and emergency call, doctor call, staff call, meal call
- Control of optical signals: Toilet alarm - white, room call - red, presence – green and yellow
- Security function: Short circuit resilient, call circuit monitoring

Duty room interface with integrated signal lamp designed with four lamp sections using power-saving LED technology. Serves as a controller for duty room with speech function to integrate master station into corridor databus.

With integrated circuit technology for passive call and cancellation units including call circuit monitoring. The input and output parameters are adaptable to local requirements.

Local storage of configuration data including the 8-character alphanumeric text for the duty room, display and audio parameters, special functions and additional display texts (call types, etc.). Equipped with a service socket for the configuration module and selection switch for quiescent/working current.
Startup support due to remote access functions. Simple installation using simple mounting technology in combination with the corresponding connection board. The duty room unit is part of the corridor databus. Upgradable to future system firmware due to trendsetting Flash technology.

- Corridor databus for digital data and audio transmission
- Interface for connection of a master station
- Configuration socket for selectable decentralized configuration in conjunction with the configuration module
- Service socket for connecting analysis tools
- Quiescent/working current option
- Compatibility mode for former/new DIN VDE 0834
- Service and remote access function
- Switchable signal lamp (in combination with dummy plate)

Technical Data

Type of protection	IP 40
Material	housing: PB + ABS - FR lamp cover: PC
Color	white, similar to RAL 9016 lamp cover: white, translucent
Weight	approx. 225 g
Dimensions	W: 158 mm H: 110 mm D: 90.5 mm

incl. blank cover plate

Accessories

72583Z1 Connection board for duty room interface, white

72583Z1 Connection board for duty room interface, white

Connection board for duty room interface.

Technical Data

Material	PC + ABS - FR
Color	white, similar to RAL 9016
Dimensions	W: 158 mm H: 110 mm D: 35 mm

74422A1N Master station

Master station as table unit with integrated operating elements such as presence button, call and doctor call push-button, and high-quality TFT display as well as a touchscreen interface. Serves as a comfortable communication unit incl. speech function and offers various functional features for use in the duty room or at central workstations. Clear menu structure with icons for intuitive operation.

Equipped with 5.7" TFT color display with background illumination: If presence is set, system messages are indicated optically and acoustically, organized by priority as assigned in the system (e.g. calls, malfunctions or presences). The function keys on the touch screen display can be used to switch to other messages. Speech (incoming and outgoing) in the hands-free mode via integrated speaker and microphone or using the telephone handset, in high audio quality due to digital transmission technology. The audio parameters are optimally adaptable to the respective environment. The volume can even be changed during a call. Simple call setup using the touch screen display: It is possible to activate calls, presences and participants in the master station address book. Eavesdropping protection prevents monitoring of subscribers, as long as no call has been triggered. Staff can initiate conversation announcements to predefined targets using the master station.

Option for the display and selection/deselection of services (interconnections) via the respective function keys, e.g. for forwarding of system messages to adjacent wards or to functional areas. Support of call upgrading function from rooms (beds) using the master station address book to trigger a patient call with higher priority in selective zones of the ward or in an intensive care unit.

Storage of all configuration data in the higher-level duty room interface. Startup is supported by a local service menu and extended remote access functions. Data connection with the duty room interface via the databus connection unit. Upgradeable to future system firmware due to trendsetting Flash technology.

Features

- Databus for digital data and audio transmission to the duty room interface
- Service socket for connecting analysis tools
- Service and remote access functions

Functions:

- Operation via touch screen display
- Table display of system messages organized by priority
- Call acknowledgement for queried calls
- Address / call query by room and bed
- Staff communication
- Discreet or hands-free speech
- Speech broadcasting in definable areas
- Selection of services (interconnections)
- Call triggering and presence indication

Components:

- Desk-top housing
- Telephone handset with speaker and microphone
- Call push-button and doctor call push-button
- 2 presence push-buttons (green/yellow)
- Function keys for: Volume regulation, microphone muting and speaker button
- 1 TFT color display (5.7") with touch screen

Technical Data

Ambient temperature	5 °C ... 55 °C
Type of protection	IP 20
Material	PC + ABS - FR
Color	upper housing: white, similar to RAL 9016 lower housing: grey, similar to RAL 7035
Weight	approx. 1332 g
Dimensions	L: 360 mm W: 215 mm H: 80 mm

Accessories

73070A Databus connection unit for master station

73070A Databus connection unit for master station

Databus connection unit with one 8-pin plug contact for connection of master station.

Technical Data

Type of protection	IP 40 when installed incl. according cover plate
Fixation	in flush-mounting box, DIN 49073
Color	white, similar to RAL 9016
Dimensions	W: 71 mm H: 71 mm

Accessories

88911J3 Cover plate for databus connection unit

88911J3 **Cover plate for databus connection unit**

Technical Data	
Material	PC + ABS - FR
Color	white, similar to RAL 9016
Dimensions	W: 68 mm H: 68 mm

Accessories

88914A3 Mounting frame for cover plate (single)
88914B3 Mounting frame for cover plate (double)
88914C3 Mounting frame for cover plate (triple)

73642B2 Call / cancel push-button

Call/cancel push-button with flush mount supporting ring and expanding/retaining clamps for flush-mounting boxes.

Technical Data	
Type of protection	IP 40, when installed incl. according cover plate
Fixation	in flush-mounting box, DIN 49073
Dimensions	W: 71 mm H: 71 mm

Accessories

88882A3 Cover plate with buttons (red and green)
88882P3 Cover plate for duty room unit

Features

- 1 button for cancel and presence function
- 1 LED reminder lamp (green)
- 1 sound generator for call forwarding
- 1 button for call function
- 1 LED orientation / reassurance lamp (red)

88882P3 Cover plate white for duty room unit

Technical Data	
Material	PC + ABS - FR
Color	white, similar to RAL 9016
Dimensions	W: 68 mm H: 68 mm

Accessories

88914A3 Mounting frame for cover plate (single)
88914B3 Mounting frame for cover plate (double)
88914C3 Mounting frame for cover plate (triple)

Features

- 1 presence push-button (green)
- 1 acknowledgement push-button (white)

76919T1 Desk top unit for room terminal

As 76919A1, but designed as a desk top unit for room terminal with 2 m connecting cable.

Delivery without corridor terminal

Accessories

72642C Corridor databus switch, repeater and termination -active- (2 pieces required)
88910A3 Dummy cover plate (2 pieces required)
74199A Auto-release plug system
88880D3 Cover plate for auto-release plug system
88914C3 Mounting frame for cover plate (triple)

76920B1 Room terminal without display, with doctor call

As 76921B1, but without display and without multifunction button.

Technical Data

Operating voltage	24 V DC
Class of protection	IP 40
Material	PC + ABS - FR
Installation	sm, fm and cavity wall mounting
Color	white, similar to RAL 9016
Dimensions	L: 250 mm W: 145 mm H: 37.5 mm (incl. sm connection board)

Features

- Short-circuit resilient inputs / outputs:
- 3 call circuits for doctor call, bathroom call, call
- 1 call circuit for diagnostic call – it can also be configured as an additional output
- 2 presence call circuits
- 1 cancel push-button - bathroom
- 1 signal line for acoustic call forwarding (buzzer)
- Lamp outputs with filament breakage and short circuit recognition: call lamp, call lamp - bathroom, Presence I, Presence II

Accessories

88860FV Doctor call button replacement set (dummy)
76919A1 Surface-mounted connection board for room terminal
76919B1 Flush-mounted connection board for room terminal
76919C1 Cavity wall connection board for room terminal

88860FV Doctor call button replacement set (dummy)

Dummy button to replace existing doctor call button of a room terminal.

Technical Data

Color	white, similar to RAL 9016

10 pcs

76919A1 Surface-mounted connection board for room terminal

Surface-mounted connection board for room terminal as room distributor with plug-in terminals for connecting power supply and databus lines as well as passive call cancelling units and room signal lamps. The connection board contains over-voltage protection elements for outgoing room cabling. The supply terminals are connectable screw terminals and all other connections are designed as plug-in terminals.

Technical Data

Material	PC + ABS - FR
Color	white, similar to RAL 9016
Dimensions	W: 145 mm H: 250 mm D: 37.5 mm (incl. room terminal)

Connectable screw terminals for up to 2 x 2.5 mm ² Cu wire end sleeve, separately shielded supply for components in the room such as bed combination, call module, etc. via connectable miniature terminals, max. wire cross-section 0.5 mm ².

72575Z3 Relay module with buzzer unit for EM 340/341

Relay and buzzer unit for connection, e.g. to external management systems and for local acoustic alarms.

Product similar to figure/depiction.

Availability planned for Q1 2010!

72570P1 Room electronic module EM 140 (4 lamps) without bed databus

Room electronics module with integrated room signal lamp designed with 4 lamp sections using power-saving LED technology. Serves as a controller for patient and function room without speech function with connecting options for call units and cancel units including call circuit monitoring. Equipped with service socket for the configuration module, selection switch for quiescent/working current, VDE compatibility mode and option to switch off the signal lamps. Allocation of a 8-character alphanumeric text for the room and bed units.

- Design without bed databus
- Signal lamp using power-saving long-life LED technology
- Bed identification for two beds with call circuit monitoring
- Switchable signal lamp
- Quiescent/working current option
- Compatibility mode for former/latest DIN VDE 0834
- Applicable in all Systems 99

Features

- Bed databus for connecting additional selective bedside call units and display modules within the room
- Room calls: Normal call, emergency call, diagnostic call, doctor call
- Bathroom calls: Normal call, enhanced call, bathroom emergency call
- Cancellation and presence: Combined cancellation/presence, Presence 1 (green) separate cancellation for bathroom / WC
- Acoustic signals: Call transfer for normal call and emergency call, doctor call, staff call, meal call
- Control of optical signals: Bathroom call lamp - white, room call lamp - red, PR lamps – green and yellow
- Security function: All outputs short circuit resilient, call circuit monitoring
- Switchable indicator lamp (for use without lamps, dummy plate required)

Technical Data

Type of protection	IP 20
Material	PC
Fixation	surface mounting
Color	see connection board lamp cover: white, translucent
Dimensions	W: 110 mm H: 110 mm D: 75 mm (w/o connection board)

Replacement for 72570D, 72570D2, 72570A, 72570A2

Accessories

72570Z2 Connection board EM 140 without bed databus, white
72570Z1 Connection board EM 140 without bed databus, grey
88893AV Dummy cover plate for room electronic module

72570Z2 Connection board EM 140 without bed databus, white

Connection board for room electronic module 72570xx in white.

Technical Data

Material	PC + ABS - FR
Color	white, similar to RAL 9016
Dimensions	W: 158 mm H: 110 mm D: 35 mm

Connection board, connection terminals

72556L1 Lighting for name plate

As an optional lighting element for the name plate 72556S1/S2.

72569CL Corridor lamp CL131 (3 lamps)

To be connected to the room terminal or used as a parallel display for the electronic module with power-saving long-life LED technology.

Technical Data

Type of protection	IP 40
Fixation	surface mounting
Color	white, similar to RAL 9016 (plastic base) lamp cover, white, translucent
Dimensions	W: 158 mm H: 110 mm D: 87 mm

Accessories

72569Z4 Connection board for corridor lamps CL13x/14x, white

72569DL Corridor lamp CL141 (4 lamps)

As 72569CL, but 4 lamp sections.

Technical Data

Type of protection	IP 40
Fixation	surface mounting
Color	white, similar to RAL 9016 (plastic base) lamp cover, white, translucent
Dimensions	W: 158 mm H: 110 mm D: 87 mm

Accessories

72569Z4 Connection board for corridor lamps CL13x/14x, white

72569Z4 Connection board for corridor lamps CL13x/14x, white

Connection board for corridor lamp CL13x/14x.

Technical Data

Material	PC + ABS - FR
Color	white, similar to RAL 9016
Dimensions	W: 158 mm H: 110 mm D: 35 mm

89760C Headphones with right-angle plug

Headphones with right-angle plug to use with the patient handset or patient terminal.

Technical Data

Frequency range	0.04 ... 15 kHz
Loading capacity	0.1 W
Weight	approx. 45 g

Accessories

89760BZ Spare foam pads

Features

- 1 adjustable headband
- 2 foam-padded earpieces
- 1.8 m connection cable
- 1 stereo right-angle plug (3.5 mm)

71008C3 Loudspeaker

Loudspeaker with central insert, flush-mounted supporting plate and expanding / retaining clamps for flush-mounting boxes.

Technical Data

Loading capacity	0.15 W
Class of protection	IP 20
Fixation	in flush-mounting box DIN 49073
Color	white, similar to RAL 9016
Dimensions	W: 71 mm H: 71 mm

Accessories

88910B3 Standard plate

88910B3 Standard plate

Standard plate with insertion hole in accordance with DIN 49075.

Technical Data

Material	PC + ABS - FR
Color	white, similar to RAL 9016
Dimensions	W: 68 mm H: 68 mm

Accessories

88914A3 Mounting frame for cover plate (single)
88914B3 Mounting frame for cover plate (double)
88914C3 Mounting frame for cover plate (triple)

71048B Interfacing unit for microphone

Microphone interface for bedside hands-free function. The microphone interfacing unit is connected to the analogue audio databus. The bedside microphone for the corresponding cover plate is enabled via a special control contact of the call module.

Technical Data

Type of protection	IP 40, when installed with respective cover plate
Fixation	in fm installation box, DIN 49073
Dimensions	W: 71 mm H: 71 mm

Accessories

71052D3 Cover plate with microphone

71052D3 Cover plate including microphone

Cover plate with microphone as a supplement for the microphone interface. The cover plate contains the microphone for bedside hands-free function.

Technical Data

Material	PC + ABS - FR
Color	white, similar to RAL 9016
Dimensions	W: 68 mm H: 68 mm

Accessories

88914A3 Mounting frame for cover plate (single)
88914B3 Mounting frame for cover plate (double)
88914C3 Mounting frame for cover plate (triple)

73072A2 Wall electronics

Wall electronics for surface mounting as an interface between electronic module and patient handset. For call initiation with individual bed identification. It enables the selection of radio and TV programs as well as the transmission of data and audio signals to the patient handset. Mobile call units (bulb and multiple button, patient handsets) are connected to the auto-release plug system or to the 7-pole plug (not patient handset). Connection of up to 4 wall electronics using wire-saving technology via the bed databus to an electronic module. Identification display (up to 8 digits, freely configurable) on call initiation. Monitoring of connected call units (call circuit monitoring). Additional 6-pole plug for connection of a medical unit (e.g. infusion pump) with alarm contact.

Technical Data

Material	PC + ABS - FR
Color	white, similar to RAL 9016
Dimensions	W: 110 mm H: 182 mm D: 33 mm

Features

- 1 monitored connector for auto-release plug
- 1 call push-button with LED orientation lamp and reassurance lamp (red)
- 1 monitored auxiliary plug contact for connecting a pear push-button or a multiple push-button (7-pin)
- 1 monitored auxiliary plug contact for connecting a diagnostic device (6-pin)

Only in combination with central unit 72640B2!

Accessories

88950A Flush mount base for wall electronic
88950B Cavity wall base for wall electronic
88956B Frame for flush or cavity wall mounting base

73073E3 Call module with push-button and 1 monitored socket

As 73073D3, but without 6-pin socket.

Technical Data

Type of protection	IP 40, when installed with respective cover plate
Fixation	in flush-mounting box, DIN 49073
Dimensions	W: 71 mm H: 71 mm

Replacement for 73071E, 73073E

Call module, connection terminal

Features

- 1 call push-button
- 1 LED orientation / reassurance lamp (red)
- 1 socket, 7-pin
- Control contact for microphone interfacing unit with bed identification

Accessories

88881L3 Cover plate with button (red) and 1 socket

88881L3 Cover plate with push-button (red) and units with 1 socket

Cover plate for call module and call unit with call push-button and 1 socket.

Technical Data

Material	PC + ABS - FR
Color	white, similar to RAL 9016
Dimensions	W: 68 mm H: 68 mm

Accessories

88914A3 Mounting frame for cover plate (single)
88914B3 Mounting frame for cover plate (double)
88914C3 Mounting frame for cover plate (triple)

73073F3 Call module with call push-button

As 73073D3, but 7-pin and 6-pin socket. Optional connection to an external call device (e.g. auto-release plug system).

Technical Data

Type of protection	IP 20, when installed with respective cover plate
Fixation	in flush-mounting box, DIN 49073
Dimensions	W: 71 mm H: 71 mm

Replacement article for 73071F, 73073F

Call module, connection terminal

Features

- 1 call-push button
- 1 LED orientation / reassurance lamp (red)
- Control contact for microphone interfacing unit
- 1 connection for external call device (e.g. auto-release plug system)
- With bed identification

Accessories

88881K3 Cover plate with call push-button (red) and call module

88881G3 Cover plate with call push-button - red -

Cover plate with one call push-button (red)

Technical Data

Material	PC + ABS - FR
Color	white, similar to RAL 9016
Dimensions	W: 68 mm H: 68 mm

Accessories

88160A Sealing kit for standard installations
88914A3 Mounting frame for cover plate (single)
88914B3 Mounting frame for cover plate (double)
88914C3 Mounting frame for cover plate (triple)

88881D3 Cover plate with call push-button - blue - for doctor call

Cover plate with blue call push-button for doctor call.

Technical Data

Material	PC + ABS - FR
Color	white, similar to RAL 9016
Dimensions	W: 68 mm H: 68 mm

Accessories

88160A Sealing kit for standard installations
88914A3 Mounting frame for cover plate (single)
88914B3 Mounting frame for cover plate (double)
88914C3 Mounting frame for cover plate (triple)

70045A3 Call switch with pull cord and knob

Call switch for connection to an electronic module or room terminal via a passive input. Superordinate room identification displayed after call initiation. Function monitoring is carried out by the electronic module or room terminal (call circuit monitoring).

Technical Data

Type of protection	IP 40, when installed incl. according cover plate
Material	ABS
Fixation	in flush-mounting box, DIN 49073
Version	for normally closed circuit system
Dimensions	W: 71 mm H: 71 mm

Features

- 2 m PVC cord with red ABS-knob
- 1 LED reassurance lamp (red)

Accessories

88880A3 Cover plate for call switch with pull cord