ACKERMANN
by Honeywell



Product Catalog 2013

Ackermann Clino Systems

Contents

1	**General information**	**3**
	Abbreviations / Ingress Protection	3
2	**Clino Systevo**	**6-103**
	System description	6-7
	System overview	8-11
	Application examples	12-21
	Central components	22-47
	Duty room components	48-53
	Room components	54-94
	Corridor components	95-97
	Components for installation / accessories	98-103
3	**Clino System 99protect**	**106-111**
	System description	106-107
	Components	108-111
4	**Clino Dashboard**	**114-115**
	System description	114-115
5	**Clino Guard**	**118-122**
	System description	118-119
	Central components	120
	Transponder	121
	Accessories	122
6	**Clino Guard plus**	**124-132**
	Central components	124-129
	Transponder	130-132
7	**Life Care System**	**134**
	System description	134

Contents

8	**Clino Call DECTplus**	**136-147**
	System description	136-137
	Central components	138-143
	Mobile units	144-147
9	**Media solutions**	**150-158**
	TV solutions	150-155
	Clino Media	156-157
	Clino Vision	158
10	**Standalone systems**	**160-164**
	System description	160
	Systems	161-162
	Additional components	163-164
11	**Appendix**	**173-174**
	Terms and Conditions	173-174

Symbols used

= List of contents which the part number includes

= Information, important notice such as special versions, dependencies etc.

= Packing unit

= Available as from...

IP type of protection

The type of protection indicates the suitability of electric operating materials (for example, devices, lights and installation material) against solid foreign objects and for various ambient conditions.

Levels of protection for protection from touch and foreign bodies (1st digit)

Digit	Protection from touch	Protection from foreign bodies
0	No protection	No protection
1	Protection from large-sized body parts (diameter 50 mm)	Large foreign bodies (diameter from 50 mm)
2	Finger protection (diameter 12 mm)	Medium-size foreign bodies (diameter from 12.5 mm)
3	Tools and wires (diameter from 2.5 mm)	Small foreign matter (diameter from 2.5 mm)
4	Tools and wires (diameter from 1 mm)	Grain-shaped foreign matter (diameter from 1 mm)
5 (K)	Wire protection (as IP 4) dust-protected	Dust accumulation
6 (K)	Wire protection (as IP 4) dust-proof	No ingress of dust

Levels of protection for the protection from water (2nd digit)

Digit	Protection from water
0	No protection
1	Protection from vertically dripping water
2	Protection from diagonally (15°) falling drip water
3	Protection from falling spray water up to 60°, against the vertical
4	Protection against splashing water
5	Protection from hose water (nozzle) from any angle
6	Protection from strong hose water (flooding)
7	Protection from temporary submersion
8	Protection from permanent submersion

Example:
IP64: Completely dust-proof - protected against splashing water - nearly leak-proof.

Notes



Clino Systevo

System description	6-7
System overview	8-11
Application examples	12-21
Central components	22-47
Duty room components	48-53
Room components	54-94
Corridor components	95-97
Components for installation / accessories	98-103

General
This System is the scalable 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 System complies with current standards and specifications for call systems as stipulated in 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 System provides further functions for process support as well as contactless 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 System. The system that is 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 room 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 such as 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
Control panels such as Systevo Control as well as central devices, system interfaces (e.g. to hazard alert systems, alarm servers, paging systems and telecommunications systems) are connected with each other via the ward databus. Several Systevo Control can also be linked via Ethernet. Up to 64 Systevo Control 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 System always provides maximum safety.

Features
The System 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 with 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.

Control Panel Systevo Control
Systevo Control handels 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 third-party systems. An audio channel is available for each control panel, which allows for communication between nursing staff and patients or visitors (in combination with a door intercom system). The control panels can be installed centralized or decentralized depending on individual requirements.

Audio interface
In combination with a DECT system, the audio interface enables mobile call answering using mobile devices (DECT, WLAN, GSM) as well as the function "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.

Workstation
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 control panels. The control panels can be installed centralized or decentralized depending on individual requirements.

Information displays and dashboard devices
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 room 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.

RFID module
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.

Configuration



Nurse call operating computer

Networking



System switch



DSLAM



FlexES Control 19"

Accounting



Pay station



Accounting server

Content



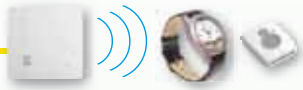
Telecommunications device PABX

VoD server

TV Server



Dashboard



Clino Guard Base Station

Information display

USV module

Ward 1

Duty room interface

Systevo Control

DECT handset

Databus connection unit

Clino Call DECT System

Master station

Ward 2

Field bus card 99

Ward 3

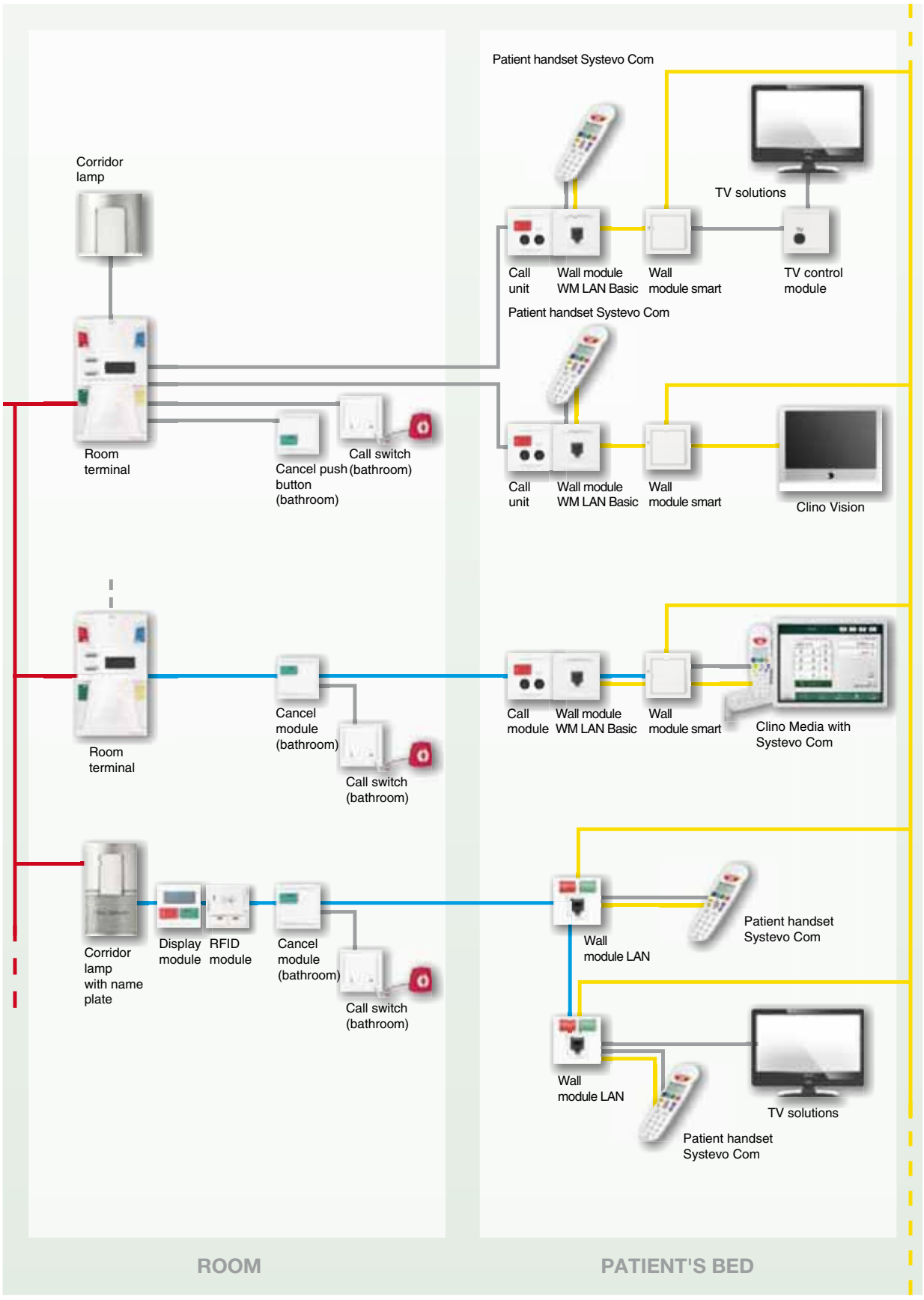
Field bus card 99

Ward 4

Field bus card 95

CENTRAL COMPONENTS

WARD

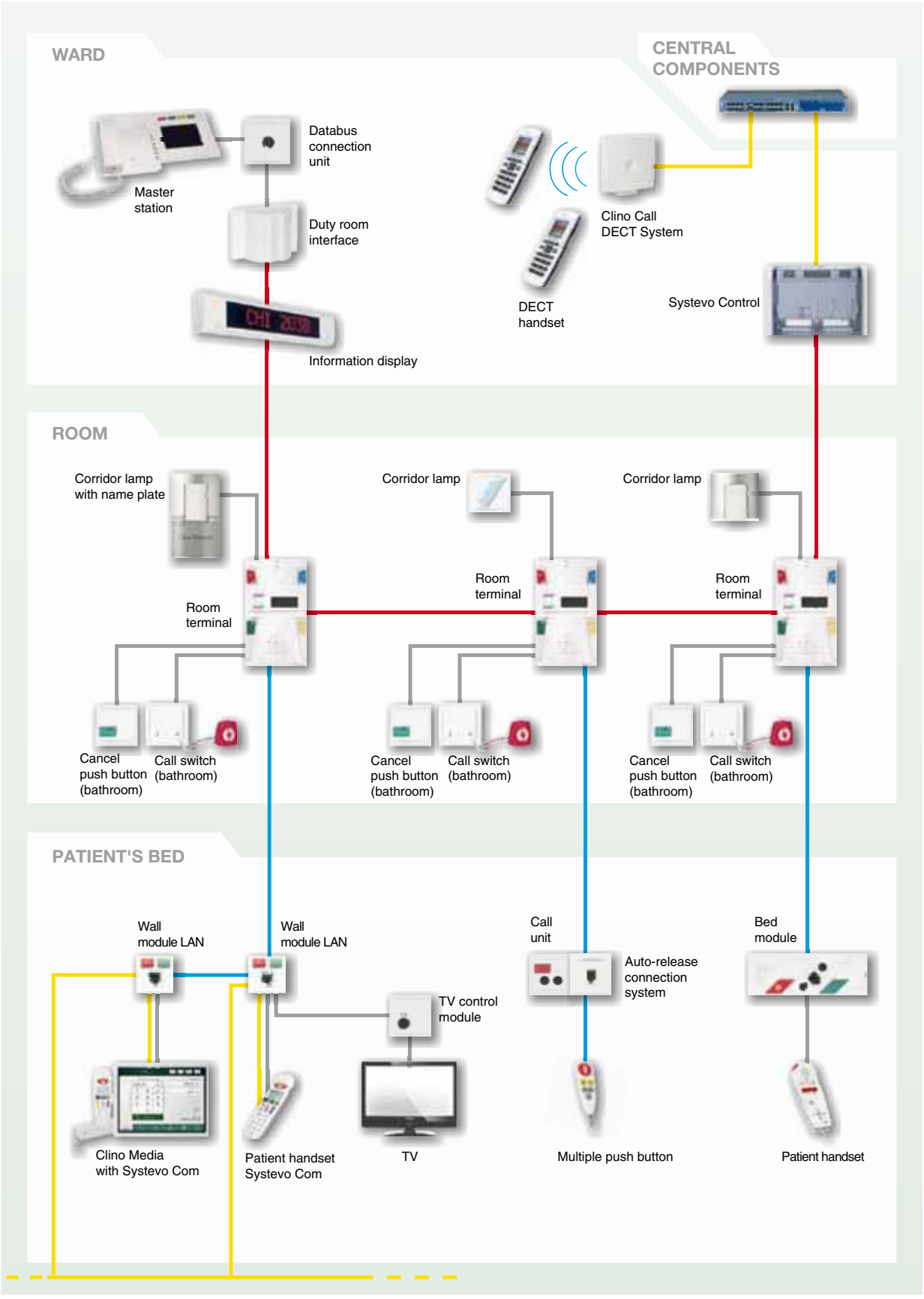


Ethernet / LAN
Corridor databus

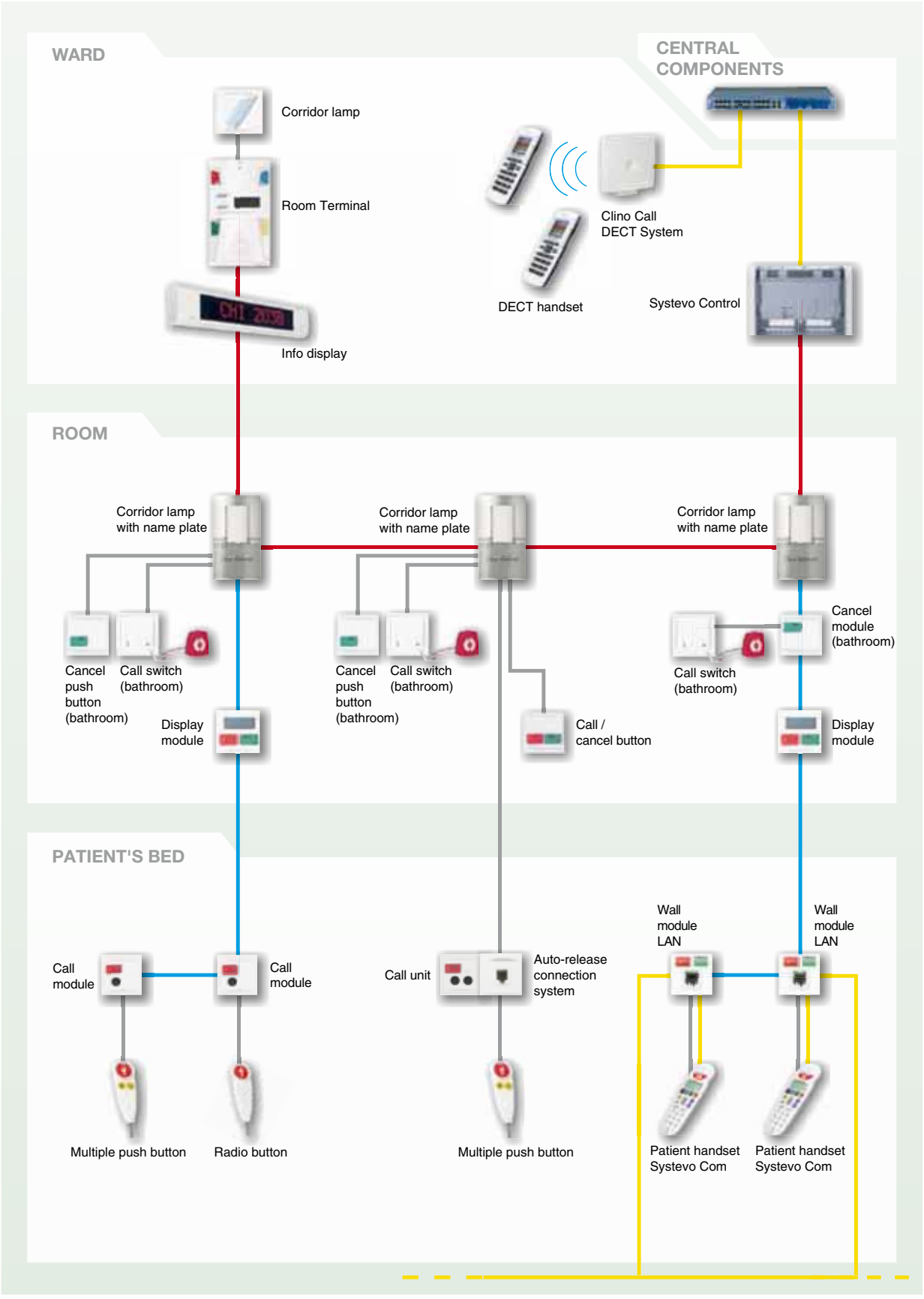
Direct connection
Bed databus

Ring line
Clino System 95

System overview with speech



System overview without speech



Patient admissions

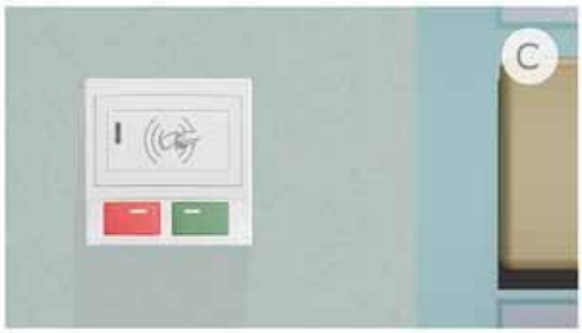




Comfortable administration and management software for adaptation of individual service and accounting concepts.



Cash terminal for labor-saving administration and accounting of value-added services.



RFID module and patient/staff cards provide individual control functions.



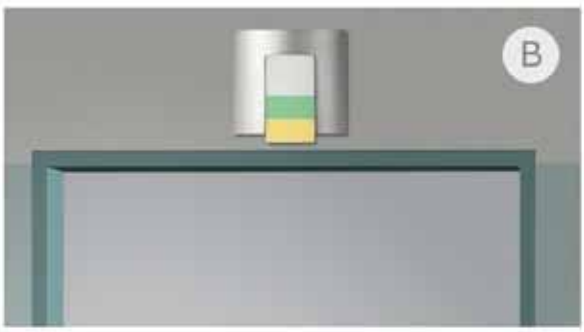
RFID patient/staff cards for the secure use of control and accounting functions.

Care institution

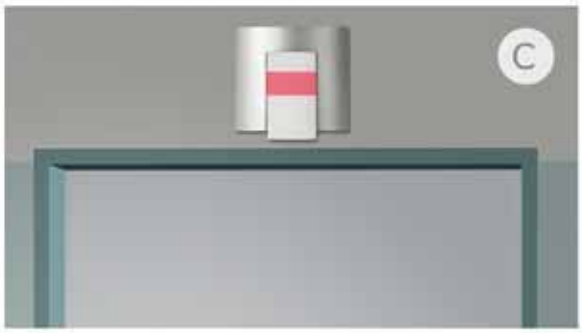




Information display for prioritized and duty-dependent plain text display of calls and alarm messages from activated systems.
Also available for parallel, color-differentiated presence display, shown here as the Clino Dashboard solution for displaying values for vital signs in conjunction with medical monitoring systems.



Corridor lamp using LED technology for energy-saving, maintenance-free call and presence display.



Electronics module with integral corridor lamp as freely configurable control unit for rooms without intercom functionality.



Universal display as programmable and duty-dependent parallel display unit for calls and alarms.

Resident room





Display module for programmable and duty-dependent call and presence display with integral buttons for call initiation and presence verification.



Call unit with auxiliary plug-in contacts for connecting mobile call units, pear push-buttons, etc. and socket for connecting medical devices (infusion pump, monitor, etc.) with dedicated call initiation.



Pull cord for spray water protected call initiation and call/cancel button for acknowledging calls from the wet room.



The RFID module makes it possible to personalize processes and to provide simple, audit-proof documentation. May be used alone or in combination with display module, room terminal or master station.

Patient room with discreet speech





In addition to the standard nurse call functions, the room terminal is a communication, display and control unit for the nursing staff that also supports several programmable call and presence circuits and digital intercom functions, such as auxiliary queries and staff communication.



Bed module as multifunctional interface to simple and integrated patient handsets allows simple control of ELA, patient TV and room control functions (light, blind, etc.) and discreet communication for care purposes.



Pull cord for spray water protected call initiation and call/cancel button for acknowledging calls from the wet room.



Professional patient TV and multimedia devices – wall or bedside options. The TV control module facilitates control and permits audio transmission through the patient handsets of the nurse call system.

Patient room with TV-/Telephone





RFID module with an integrated call and cancel button for personalizing the care processes and controlling access in connection with the EM34x room electronics modules.



Wall module LAN and patient handset Systevo Com with control, telephone and accounting functions, and optional call processing via mobile DECT terminal



Pull cord for splash proof call initiation and call/cancel unit for acknowledging calls from the wet room.



Professional patient TV and multimedia devices available as wall or bedside options. The TV control module facilitates simple control and enables audio transmission to the patient handsets of the nurse call system.

Patient room with Multimedia



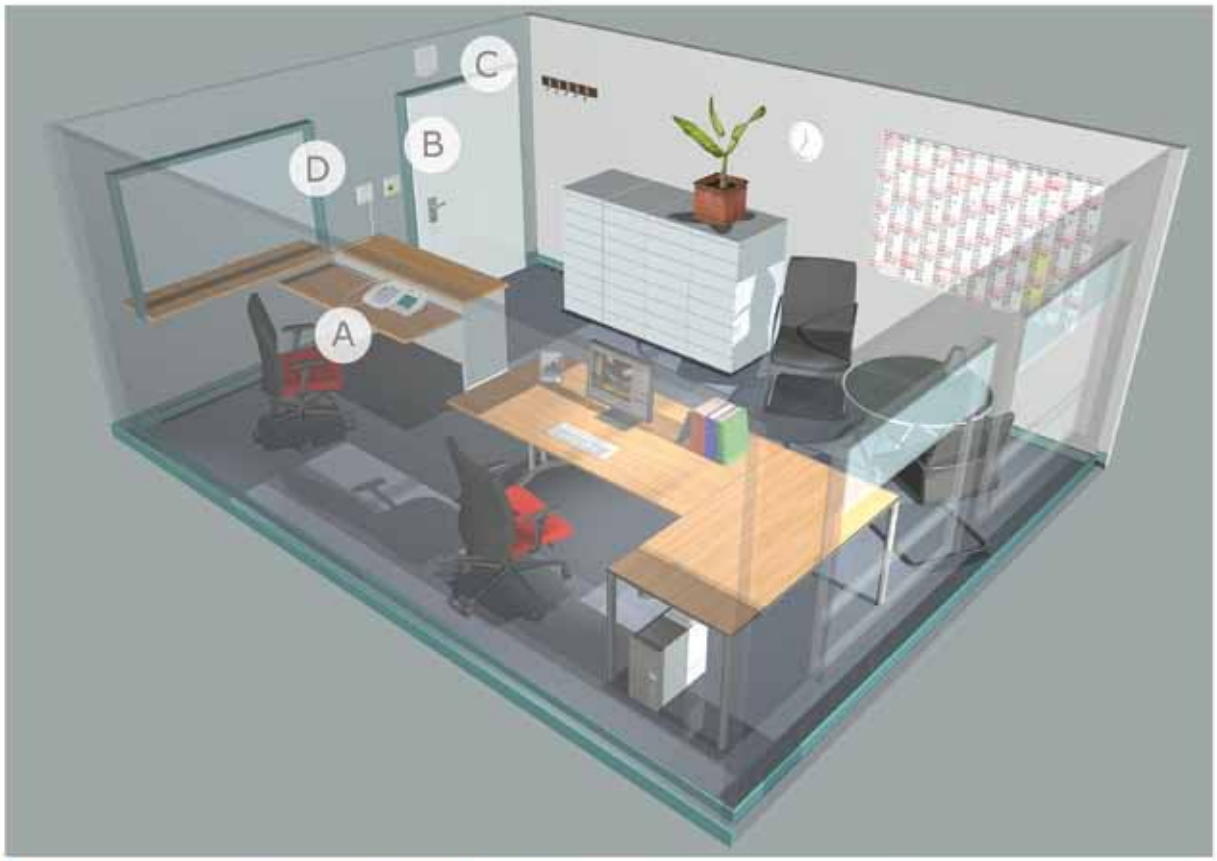


The patient handset Systevo Com offers through the combination of a call device and the IP data network a comfortable management solution at the patient's bedside. Different functions are available such as TV and room control, patient telephony with accounting and mobile and stationary call inquiries.
Due to the innovative design, the handset is intuitive to operate and can be cleaned easily due to its IP 54 protection class housing. The self-release connection system protects the installation from damages and the replaceable connection cables and housing elements guarantee the protection of the investment.



In combination with the WM LAN Basic, the WM Smart wall module provides the basis for individual solutions at the patient's bedside.
Via the connection options for simple pear push-buttons, diagnostic devices, Systevo Com and Clino Media Bedside Terminals, it enables safety, control and comfort functions like domotics, telephony, IPTV, Video on Demand and internet access through the use of telecommunication structures and IP data networks, and secure and compliant nurse calls.

Duty room





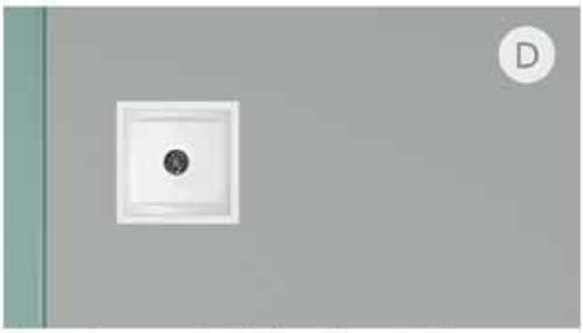
Master station as a convenient and versatile display, communication and control unit for the ward office or duty room with touch display for duty room functions such as patient call priorization, duty selection, discreet communication in digital quality (staff communication, call queries, announcements), etc.



Wall unit for presence control (parallel to master station).



Duty room interface with integral indicator lamp or as a blind module in conjunction with another corridor lamp.



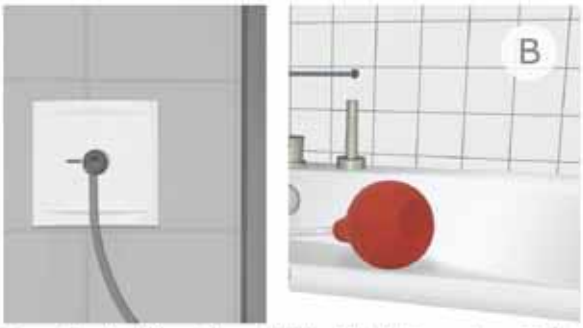
Bus connection as a monitored interface to the master station.

Ward bathroom





In addition to the standard nurse call functions, the room terminal is a communication, display and control unit that also supports several programmable call and presence circuits as well as digital intercom functions that are adapted to the acoustics of the room in question, etc.



Pneumatic call unit for reliable call initiation in the bath area using a built-in, spray water protected unit and a potential-free, easy-to-clean rubber ball.



Pull cord as call unit for reliable call initiation in wet room areas. The spray water protected unit is installed above the water outlet / shower head and can be fitted to provide spray water protection to IPx4 using the optional sealing kit. The red, 2 m long, PVC pull cord with knob and call symbol means that calls can be initiated reliably even by a person who is lying on the ground.

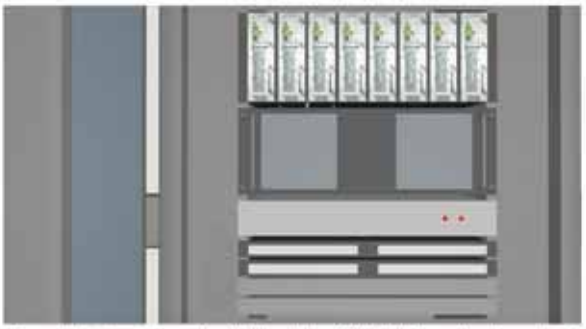
System enhancement ITK





System expansion with ITK value-added services in 19" distributor cabinet consisting of servers, system switches, USV and optional active components (DSLAM) for using existing 2-wire installations.

This enables the use of e.g. analog telephone devices as transport media for standard IP protocols, VoIP telephony, IPTV and internet access to connect to the wall module Smart.



The central call equipment installation in the 19" distributor cabinet consists of an operating computer, system switch, USV and a control panel Systevo Control.

In the rack, up to 7 units can be used e.g. for migration of the Clino Systems Phon 95 as an extension to the existing patient call centre.

System enhancement hazard detection management





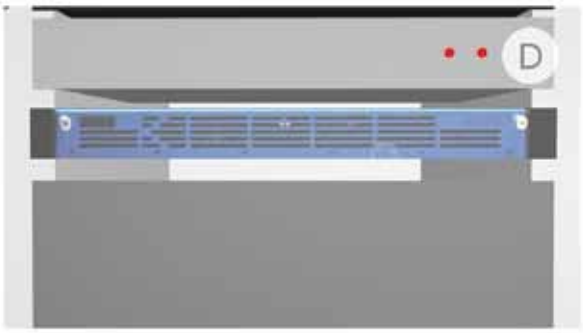
Event-dependent announcements and alarm and evacuation control e.g. with Esser Variodyn D1.



Safe and targeted information for the care staff in case of fire events e.g. with FlexEs fire alarm systems from Esser.



Clino Call DECTplus System for the safe transmission and escalation of calls and alarm messages via SMS technology to mobile terminal devices especially optimized for use in care equipment.



Nurse call server for system configuration and interface for protocolling and connection of external systems, like e.g. Clino Guard Protection System for Disoriented Persons and Babies.

72700A1 **Systevo Control**



Systevo Control, surface mount design, as a control unit for an organizational unit such as a ward or living area. It is a modular central control unit with two slots for the optional field bus cards (FBC). There is an option to provide power redundantly via a decentralized power supply installed in the ward or living area. It monitors and synchronizes all data traffic and intercom connections (conversations, announcements) within the organizational unit and coordinates communication with other central control units via IP communication (zone data bus or ETH-LAN). In addition, it controls display screens and acoustic call messages in accordance with stipulated priorities / service (zone linking) within a system. It has flexible configuration options for types of call, groups, services, general announcements, display texts, device parameters, system language, etc. depending on customer requirements, via the server (PC) with a comfortable Windows GUI. It uses a maximum of 64 central control units with up to 250 logical groups (sub-groups). Networking is implemented via the ETH-LAN IP interface (data / audio) and the optional zone data bus POF (data / audio). It includes an integrated gateway function for forwarding data / audio signals from the upstream bus interface (ETH-LAN, zone data bus) to the corridor data bus. It supports the compatibility mode for existing system installations with the zone controllers 72660x; a firmware update of the basic systems installed may be required. A master control unit (in the case of Ethernet: without corridor data bus) is set up to communicate with the upstream server via ETH and to control the escalation of all system alerts within the entire system. It is prepared for future firmware updates subject to license and equipped with an SD card slot to enable the use of additional service features. It is installed centrally or decentrally (surface mount design) in environments pursuant to environmental category I. Projectspecific planning of central equipment is required for more than 500 rooms.

Features

- Operation as a master / slave central control unit depending on address assignment / configuration
- Communication (data / audio) with additional control units via ETH-LAN and the POF zone data bus (max. 64)

Service functions:

- Software download for system components (if possible), firmware update, remote maintenance / SNMP function (with PC), commissioning the base unit
- SD card slot for future firmware or license updates
- Connection board for surface mounting
- Central and decentral installation

Safety features:

- Receipt of data in case of network failure pursuant to DIN VDE 0834 (UPS required)
- Option of redundant power supply via secondary feed-in
- Local emergency operation if the system master control unit fails
- Sequential monitoring of the active components connected, additional control units in the overall system and PC communication pursuant to DIN VDE 0834
- 2 x relay contacts to alert to disruptions (NOC/NCC), (1 x in compatibility mode zone controller 72660x)
- Galvanic isolation from other central units by ETH-LAN or POF connection
- Status display via LEDs
- Flash for storing the system's data
- Max. number of centrals: 64
- Max. number of (logical) groups: 250 (per system)

Technical Data

Operating voltage	24 V DC + / -10 %
Quiescent current @ 24 V DC	approx. 180 mA
Contact load relay	1A / 30 V DC
Ambient temperature	5 °C ... 40 °C
Storage temperature	0 °C ... 60 °C
Mounting	wall mounting
Air humidity	20...85 % (non condensing)
Material	PC+ABS-FR/PC
Color	gray, similar to RAL 7035
Weight	approx. 1.1 kg (incl. plug-in cards)
Dimensions	W: 278 mm H: 192 mm D: 60 mm

Systevo Control, accessories kit

Accessories

72700C1 Field Bus Card (FBC) System 99
72700D1 Field Bus Card (FBC) System 95
72700E1 Field Bus Card (FBC) POF-POF
72700Z1 Power Supply 24 V DC, in accordance with EN 60601-1-1

72700B1

Systevo Control for Systemrack



Systevo Control central unit, prepared for mounting in a system rack or in connection with the 19" front panel to be installed in a distribution cabinet. It is designed as a control unit for an organizational unit such as a ward or living area. It is a modular central control unit with two slots for the optional field bus cards (FBC). There is the option to provide power redundantly via a decentralized power supply installed in the ward or living area. It monitors and synchronizes all data traffic and intercom connections (conversations, announcements) within the organizational unit and coordinates communication with other central control units via IP communication (zone data bus or ETH-LAN). In addition, it controls display screens and acoustic call messages in accordance with stipulated priorities / service (zone linking) within a system. There are flexible configuration options for types of call, groups, services, general announcements, display texts, device parameters, system language, etc. depending on customer requirements, via the server (PC) with a comfortable Windows GUI. It uses a maximum of 64 central control units with up to 250 logical groups (sub-groups). Networking is implemented via the ETH-LAN IP interface (data / audio) and the optional zone data bus POF (data / audio). It has an integrated gateway function for forwarding data / audio signals from the upstream bus interface (ETH-LAN, zone data bus) to the corridor data bus. It supports the compatibility mode for existing system installations with the zone controllers 72660x; a firmware update of the basic systems installed may be required. A master control unit (in the case of ETH-LAN: without corridor data bus) is set up to communicate with the upstream server via ETH-LAN and to control the escalation of all system alerts within the entire system. It is prepared for future firmware updates subject to license and equipped with an SD card slot to enable the use of additional service features. It is installed centrally or decentrally (surface mount design) in environments pursuant to environmental category I. Project specific planning of central equipment is required for more than 500 rooms.

Features

- Operation as a master / slave central control unit depending on address assignment / configuration
- Communication (data / audio) with additional control units via ETH-LAN and the POF zone data bus (max. 64)

Service functions:

- Software download for system components (if possible), firmware update, remote maintenance / SNMP function (with PC), commissioning the base unit
- SD card slot for future firmware and license updates
- Front panel for mounting in the system rack
- Central and decentral installation

Safety features:

- Receipt of data in case of network failure pursuant to DIN VDE 0834 (UPS required)
- Option of redundant power supply via secondary feed-in
- Local emergency operation if the system master control unit fails
- Sequential monitoring of the active components connected, additional control units in the overall system and PC communication pursuant to DIN VDE 0834
- 2 x relay contact to alert disruptions (NOC/NCC), (1 x in compatibility mode zone controller 72660x)
- Galvanic isolation from other central units by ETH-LAN or POF connection
- Status display via LEDs
- Flash for storing the system's data
- Max. number of centrals 64
- Max. number of (logical) groups: 250 (per system)

Technical Data

Operating voltage	24 V DC + / -10 %
Quiescent current @ 24 V DC	approx. 180 mA
Contact load relay	1A / 30 V DC
Ambient temperature	5 °C ... 40 °C
Storage temperature	0 °C ... 60 °C
Mounting	in 19" rack unit
Air humidity	20...85 % (non condensing)
Material	PC+ABS-FR/PC (frontpanel: aluminium)
Color	gray, similar to RAL 7035
Weight	approx. 900 g (incl. plug-in cards)
Dimensions	W: 262 mm H: 154 mm D: 61 mm

Systevo Control, accessories kit

Accessories

72700C1 Field Bus Card (FBC) System 99
72700D1 Field Bus Card (FBC) System 95
72700E1 Field Bus Card (FBC) POF-POF
72700Z1 Power Supply 24VDC, in accordance with EN 60601-1-1
72700Z2 19" System Rack for 7 Systevo Control 72700B1
72700Z3 19" Front Panel for Systevo Control 72700B1

72700C1 Field bus card (FBC) system 99 for Systevo Control



Plug-in board for the upstream Systevo Control to manage a maximum of 127 active system components in the corridor data bus, such as room terminals, room electronic modules, information displays and other units. The corridor data bus of a field bus card can be segmented into up to six sub-groups. There is an option to feed in the Systevo Control a unit redundant power supply via a decentralized power supply installed in the ward or living area. There is an option to include a bus terminator to terminate the corridor data bus (data / audio). An additional repeater (data / audio) is required after 64 active system components. There is the option to update the firmware of active system components (providing it is supported by the units). It is prepared for future device functionality subject to license to enable the use of additional service features.

Features

- Plug-in board for Systevo Control
- Connection terminals for the corridor data bus (data / audio)
- Connection terminals for the power supply
- Service socket for the configuration module (KFM)
- Communication interface to the active system components in the corridor data bus (data / audio)
- Length of corridor data bus: 500 m (data / audio), max. 2500 m (with repeaters)
- Corridor data bus repeater: max. four items (for data / audio respectively)
- Number of corridor data bus modules: 127 (required after 64 repeaters)
- Number of corridor data bus plus bed bus modules: 255

Technical Data

Mounting	Plug-in board for Systevo Control
Weight	approx. 150 g (incl. accessories kit)
Dimensions	W: 106 mm H: 57 mm D: 12 mm (PCB)

Field bus controller (FBC) System 99, accessories kit (clamps)

72700D1 Field bus card (FBC) system 95 for Systevo Control



Plug-in board for the upstream Systevo Control to manage a maximum of 40 (50) active system components in the data bus, such as room terminals, room electronic modules, interface units and other units. The data bus of a field bus card can be segmented into up to six sub-groups. There is an option to feed in the Ward Management Controller's redundant power supply via a decentralized power supply installed in the ward or living area. An additional data amplifier (data / audio) is required after 400 m. It is prepared for future device functionality subject to license to enable the use of additional service features. Compatibility checks must be conducted on existing system installations.

Features

- Plug-in board for Systevo Control
- Connection terminals for data bus (data / audio)
- Connection terminals for the power supply
- Communication interface to the active system components in the data bus (data / audio)
- Length of data bus: 400 m (data / audio), implemented as a loop or spur
- Data amplifiers: max. 2 items (for data / audio respectively)
- Number of corridor data bus users:
- 40 (operating mode VDE 0834:2000-04)
- 50 (operating mode VDE 0834:1993)

Technical Data

Mounting	Plug-in board for Systevo Control
Weight	approx. 150 g (incl. accessories kit)
Dimensions	W: 106 mm H: 57 mm D: 12 mm (PCB)

Field bus controller (FBC) System 95, accessories kit (clamps)

72700E1 — Field bus card (FBC) POF-POF for Systevo Control



Plug-in board for the upstream Systevo Control as a communication interface to other active system components in the zone data bus such as zone controllers, Systevo Control and additional units. The zone data bus of a field bus card is set up as a double loop circuit with an incoming and outgoing loop (SL / SR). Depending on the type of cable used, varying distances can be bridged. Automatic monitoring of the cabling in accordance with DIN VDE 0834 provides an option to feed in the Systevo Control a redundant power supply via a decentralized power supply installed in the ward or living area. Compatibility checks must be conducted when extending existing system installations.

Features

- Plug-in board for Systevo Control
- Connection sockets for zone data bus SL, SR (data / audio)
- Connection terminals for the power supply
- Communication interface to the active system components in the zone data bus (data / audio)
- Length of zone data bus: 50 m (POF fibers), 150 m (HCS fibers), 1 km (FO fibers 50 / 125 µ)
- Number of users of the zone data bus: 75

Technical Data

Mounting	Plug-in board for Systevo Control
Weight	approx. 150 g (incl. accessories kit)
Dimensions	W: 106 mm H: 57 mm D: 12 mm (PCB)

Field bus controller (FBC) POF-POF, accessories kit (clamps)

72700Z1 — Power Supply 24 V DC, in accordance with EN 60601-1-1



Single-phase power supply (2 A) for constant DC supply of the Systevo Control, fitted with a P1J plug. It is protected against short-circuits, overloads and power surges, with EN60601-1 approval for the healthcare sector B (e.g. intensive care).

Technical Data

Rated voltage	230 V AC
Rated frequency	47 ... 63 Hz
Output voltage	24 V DC + / -2 %
Output current	max. 2 A
Storage temperature	-20 °C ... 85 °C
Color	black
Weight	approx. 550 g
Cable length	1.8 m
Specification	EN 60601-1
Dimensions	W: 147 mm H: 76 mm D: 44 mm

72700Z2 — 19" System Rack for 7 Systevo Control of Version 72700B1



System rack for mounting a maximum of 7 Systevo Control in a 19" distribution cabinet. Supplied as a kit.

Technical Data

Mounting	19" distribution cabinet
Material	aluminium
Color	gray
Weight	approx. 1.5 kg
Dimensions	W: 483 mm H: 268 mm D: 235 mm (6 HU)

72700Z3 — 19" Front Panel for Systevo Control of Version 72700B1



Front panel with handles for mounting the Systevo Control in a 19" distribution cabinet (2HU).

Technical Data

Mounting	19" distribution cabinet
Material	aluminium
Color	gray, similar to RAL7035 (powder-coated)
Weight	approx. 300 g (incl. mounting kit))
Dimensions	W: 0 mm H: 0 mm D: 0 mm (w/o grip) W: 483 mm H: 88 mm D: 43 mm (incl. grip)

Front panel-, mounting kit

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

72661D Converter POF-FO

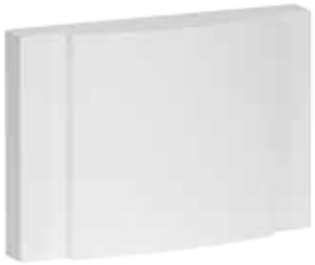


Dual Converter POF-FO for active implementation of 2-POF connector routes (such as zone controller, Systevo Control) to a 2-core optical fiber for each connection. Depending on the type can cable be used and can be bridged in different lengths. With automatic monitoring of line routes in accordance with 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 °C ... 55 °C
Material	ABS
Installation	surface mounting
Color	gray, similar to RAL 7035
Weight	approx. 2000 g
Dimensions	W: 290 mm H: 280 mm D: 64 mm

72581B1 Audio ISDN Interface



Audio ISDN interface as an audio interface between the communication system and a conventional telecommunications system with ISDN connection technology. During configuration up to 10 multiple subscriber 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 central control unit. 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.

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 onto the accompanying connection board with a quick-release fastener. It is surface mounted with a switch box.

Technical Data

Operating voltage	24 V DC
Current consumption	400 mA
Type of protection	IP40
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

72582Z1 Connection board for duty room interface - white



Connection board for Audio-ISDN-Interface.

Technical Data

Material	PC + ABS - FR
Color	white, similar to RAL 9016
Dimensions	W: 157 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	IP40
Material	PC + ABS - FR
Color	white, similar to RAL 9016
Weight	approx. 170 g
Version	for sm, fm and cavity wall installation
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)

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

Mounting	in flush-mounting box, DIN 49073
Type of protection	IP40, when installed incl. suitable cover plate
Dimensions	W: 71 mm H: 71 mm D: 25 mm (installation depth)

Two units are required for the corridor databus in the communication system - one for the data line and one for the audio line.

Features

- Max. 64 users per segment before a repeater is required
- Max. length of "corridor data bus" 500 m; beyond this, a repeater is required

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

Mounting	in flush-mounting box, DIN 49073
Type of protection	IP40, when installed incl. suitable cover plate
Dimensions	W: 71 mm H: 71 mm D: 25 mm (installation depth)

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



Contact interface unit for connecting 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 communication system, this interface serves as a control unit interface serves as a control zones indicator lamps.

Technical Data

Mounting	surface mounting or top-hat rail mounting
Type of protection	IP40
Material	PC + ABS - FR
Color	white, similar to RAL 9016
Dimensions	W: 110 mm H: 182 mm D: 34 mm

Accessories

72641Z1 Connection board for contact interface

72641Z1 — Connection board for contact interface



Connection board for contact interface unit.

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	230 V AC
Rated frequency	47 ... 63 Hz
Output voltage	24 ... 28 V DC (adjustable)
Output current	5 A
Operating temperature	0°C - 50°C at free convection cooling
Storage temperature	-25 °C ... 85 °C
Air humidity	20 ... 80 %
Type of protection	IP20
Weight	approx. 620 g
Version	for top-hat rail mounting in sub-distribution
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

89954M2 **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	230 V AC
Rated frequency	47 ... 63 Hz
Output voltage	24 ... 28 V DC (adjustable)
Output current	24 V / 10 A, 28 V / 8,6 A
Operating temperature	0 °C - 60 °C at free convection cooling
Storage temperature	-25 °C ... 85 °C
Air humidity	20...80 % (non condensing)
Type of protection	IP20
Weight	approx. 1.2 kg
Version	for top-hat rail mounting in sub-distribution
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

89954M3 — 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	230 V AC
Rated frequency	47 ... 63 Hz
Output voltage	24 ... 28 V DC (adjustable)
Output current	24 V / 20 A, 28 V / 18 A
Operating temperature	0 °C - 60 °C at free convection cooling
Storage temperature	-25 °C ... 85 °C
Air humidity	20...80 % (non condensing)
Type of protection	IP20
Weight	approx. 2.4 kg
Version	for top-hat rail mounting in sub-distribution
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	gray, 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	gray, similar to RAL 7035

Including top-hat rail

89954MC — Safety cover and mounting set for 20 A power supply unit



Mounting kit (safety cover) for 20 A power supply for wall mounting of power supplies outside a sub-distribution.

Technical Data

Color	gray, similar to RAL 7035

Including top-hat rail

89954C9 Power supply / UPS 230VAC-24VDC



Combination of single-phase power supply (0.8 A) for constant direct current supply as well as uninterruptable power supply (Online DC USV) of selected units in the nurse call system. Compact design using modern primary-pulsed circuitry with integrated battery module, suitable for top-hat rail mounting in sub-distribution. The output of the power supply unit is open-circuit proof, overload protected as well as short-circuit proof.

Technical Data

Rated voltage	230 V AC
Rated frequency	47 ... 63 Hz
Output voltage	24 ... 27 V DC
Output current	800 mA
Battery capacity	1.2 Ah
Ambient temperature	0 °C ... 60 °C
Storage temperature	-25 °C ... 85 °C
Mounting	for top-hat rail mounting in sub-distribution
Air humidity	20...80 % (non condensing)
Type of protection	IP20
Weight	approx. 1.2 kg
Dimensions	W: 131 mm H: 107.5 mm D: 137 mm

89954C6 UPS module 24 V DC (5 A) for 5 A power supply unit



24 V DC / 5 A uninterrupted power supply (online DC UPS) as addition to 24 V DC power supply unit. Designed for establishing a secure, fully uninterruptible 24 V direct current power supply, it provides uninterrupted power supply to the connected call system in the system group with the 24 V DC power supply in the case of power failure by connecting a battery module. Power failures and malfunctions are reported in compliance with DIN VDE 0834 Part 1 + 2: 2000-4. When supply voltage is available, the power supply unit supplies the devices by simultaneously charging the batteries of the UPS device.

Technical Data

Input voltage	22.5 ... 30 V DC
Output voltage	19.5 ... 26.5 V DC
Battery capacity	7 Ah
Bridging time	approx. 60 min (for 80 % load @ 20 °C)
Ambient temperature	0 °C ... 50 °C
Mounting	terminal for top-hat rail assembly (UPS module) wall mounting (battery)
Type of protection	IP20
Weight	approx. 0.4 kg (UPS module) approx. 5.6 kg battery
Dimensions	W: 47 mm H: 138 mm D: 115 mm (UPS module) W: 160 mm H: 180 mm D: 110 mm (battery)

Wall mounting of the battery within sub-distribution.

Accessories

89954CA Housing sm for power supply/UPS 5A

89954C7 UPS module 24 V DC (10 A) for 10 A power supply unit



As 89954C6, but 10 A.

Technical Data

Input voltage	22.5 ... 30 V DC
Output voltage	19.5 ... 26.5 V DC
Battery capacity	15 Ah
Bridging time	approx. 60 min (for 70 % load @ 20 °C)
Ambient temperature	0 °C ... 50 °C
Mounting	terminal for top-hat rail assembly (UPS module) wall mounting (battery)
Type of protection	IP20
Weight	approx. 0.4 kg (UPS module) approx. 12.7 kg battery
Dimensions	W: 47 mm H: 138 mm D: 115 mm (UPS module) W: 250 mm H: 180 mm D: 159 mm (UPS module)

Accessories

89954CA Housing sm for power supply/UPS 5A

89954C8 UPS module 24 V DC (20 A) for 20 A power supply unit



As 89954C6, but 20 A.

Technical Data

Input voltage	22.5 ... 30 V DC
Output voltage	19.5 ... 26.5 V DC
Battery capacity	24 Ah
Bridging time	approx. 60 min (for 60 % load @ 20 °C)
Ambient temperature	0 °C ... 50 °C
Mounting	screwing terminal (UPS module) wall mounting (battery)
Type of protection	IP20
Weight	approx. 0.4 kg (UPS module) approx. 20.3 kg battery
Dimensions	W: 47 mm H: 138 mm D: 115 mm (UPS module) W: 405 mm H: 140 mm D: 173 mm (battery)

89954C6E Replacement battery for UPS 5A/7Ah

Replacement battery for UPS 24 V DC / 5 A (online DC-UPS); battery capacity 7 Ah.

Technical Data

Battery capacity	7 Ah
Bridging time	approx. 60 min (for 80 % load @ 20 °C)
Ambient temperature	0 °C ... 50 °C
Mounting	wall mounting (battery)
Type of protection	IP20
Weight	approx. 5.6 kg
Dimensions	W: 160 mm H: 180 mm D: 110 mm

89954C7E Replacement battery for UPS 10A/15Ah

Replacement battery for UPS 24 V DC / 10 A (online DC-UPS); battery capacity 15 Ah.

Technical Data

Battery capacity	15 Ah
Bridging time	approx. 60 min (for 70 % load @ 20 °C)
Ambient temperature	0 °C ... 50 °C
Mounting	wall mounting (battery)
Type of protection	IP20
Weight	approx. 12.7 kg
Dimensions	W: 250 mm H: 180 mm D: 159 mm

89954C8E Replacement battery for UPS 20A/24Ah

Replacement battery for UPS 24 V DC / 20 A (online DC-UPS); battery capacity 24 Ah.

Technical Data

Battery capacity	24 Ah
Bridging time	approx. 60 min (for 60 % load @ 20 °C)
Ambient temperature	0 °C ... 50 °C
Mounting	wall mounting (battery)
Type of protection	IP20
Weight	approx. 23.3 kg
Connection	screwing terminal (UPS module)
Dimensions	W: 405 mm H: 178 mm D: 135 mm

89954CA **Housing sm for power supply / UPS 5A**



Switch cabinet for device combination of single-phase 5 A or 10 A power supply plus associated DC-UPS system for constant DC supply to a nurse call system. The pre-wired housing is equipped for rail mounting of a power supply and a UPS, and contains a control module for system messages from the UPS. The battery compartment can accommodate a battery with a max. capacity of 15 Ah. The tamper contact (change-over contact) can be evaluated by the control module and a key is used to secure the housing cover against opening.

A power failure and faults are reported according to DIN VDE Part 1 + 2: 2000-4. The device status is shown on an LED display: AC mains power, power failure (UPS operation).

Technical Data

Mounting	wall mounting
Material	metal, painted
Color	gray
Weight	approx. 6.5 kg
Dimensions	W: 412 mm H: 320 mm D: 212 mm

For maximum system up time the battery has to be replaced every 4 years.

76089AC **UPS module 230 V AC (19" installation)**



Modern microprocessor-controlled online continuous 230 V UPS transducer with electronic bypass incl. overvoltage protection for highly sensitive and converter critical applications like workstations in the communication system as well as server and data management processors in the Clino Com 21 System. Stable and compact 19” housing with 2 grounded electrical outlets for connecting external devices. Integrated temperature sensor for monitoring electronics and batteries as well as intelligent battery management incl. LED status displays for battery charging status and load display. Equipped with serial PC interface and management software for current Windows operating systems.

Technical Data

Rated voltage	230 V AC
Rated frequency	50 ... 60 Hz
Output voltage	230 V AC ± 2 %
Output current	max. 3 A
Power consumption	700 VA / 490 W
Battery capacity	12 V / 7 AH
Bridging time	approx. 10 min (by 100 % load)
Ambient temperature	0 °C ... 40 °C
Air humidity	20 ... 90 % (non-condensing)
Weight	approx. 15 kg
Version	for mounting in 19” cabinet
Dimensions	W: 483 mm H: 88.9 mm D: 415 mm (2 HU, 19“)

7608903 **UPS module 230 V AC (stand-alone device)**



As 76089AC, but as stand-alone device.

Technical Data

Rated voltage	230 V AC
Rated frequency	50 ... 60 Hz
Output voltage	230 V AC ± 2 %
Output current	max. 3 A
Power consumption	700 VA / 490 W
Battery capacity	12 V / 7 AH
Bridging time	approx. 10 min (by 100 % load)
Ambient temperature	0 °C ... 40 °C
Air humidity	20 ... 90 % (non-condensing)
Weight	approx. 15 kg
Version	stand-alone device
Dimensions	W: 160 mm H: 220 mm D: 400 mm

Configuration / service computer / software

72649B1 Configuration module - German



Configuration module for simple and quick entry of alphanumeric room IDs and system parameters. Entry is performed with a barcode pen according to the display menu.

Components:
- 1 barcode pen to scan the code
- 1 multicolored encoding table with specified barcode table
- 1 LCD, 2 x 8 digits for menu navigation

Technical Data

Dimensions	L: 345 mm W: 235 mm D: 55 mm

72649BA Configuration module - English

As 72649B1, but English version.

Technical Data

Dimensions	L: 345 mm W: 235 mm D: 55 mm

72649BG Configuration module - French

As 72649B1, but French version.

Technical Data

Dimensions	L: 345 mm W: 235 mm D: 55 mm

72649BE Configuration module - Italian

As 72649B1, but Italian version.

Technical Data

Dimensions	L: 345 mm W: 235 mm D: 55 mm

72649BK Configuration module - Spanish

As 72649B1, but Spanish version.

Technical Data

Dimensions	L: 345 mm W: 235 mm D: 55 mm

On request

Operating computer (without monitor)



Nurse call system operating computer for configuration, display, operation and call logging in the communication system. Additionally as an interface to third-party systems such as paging systems, EDP, ZLT, etc. Consists of computer with keyboard, mouse, HDD, DVD CDR/RW and interfaces (serial, LAN, USB).

Equipped with application software for the following functions:
- Configuration tool communication system
- Allocation of room configuration
- Definition of call system functions and parameters
- Setup of call types, call type groups, call type upgrading
- Configuration of actuators for controlling external systems (e.g. light, blinds)
- Setup of radio and TV programs
- Service functions
- Database management system for data storage
- System management tools for system analysis
- Network functions for system access
- Freely configurable services (zone networking)
- Allocation of temporally defined services
- Selection of call type groups for services
- Definition of targeted message forwarding between call system
- Freely configurable announcement functions (collective announcements)
- Selection of recipients for collective announcements
- Fault monitoring and reporting (according to DIN VDE 0834)
- Graphic and tabular display of messages according to priority, call type and time of call
- Presence report PR1 and PR2
- Call reports (normal, public wash room, doctor, priority call, etc.)
- Fault reports (according to DIN DVE 0834 application area II)
- Call answering (e.g. in combination with a master station)
- Call cancelling (e.g. in combination with a master station)
- Selection of rooms (e.g. in combination with a master station)
- Collective announcement into room or selected recipients (e.g. in combination with a master station)
- Input and management of patient data incl. management of bed allocation (manual)
- Access control via user ID (if required)
- Data output through a connected printer

Optionally:
- Message transmission to a wireless messaging system (e.g. paging system or DECT telecommunications system)
- Freely configurable recipient addresses for messages from call system zones
- Definition of display format of messages to be transmitted
- Setup of different services (e.g. day, night service)
- Allocation of repetition times, acoustic call tones, etc.

The PC complies with the directives for designing workstations and office workplaces (BGI 650) issued by the German Federal Institute for Occupational Safety and Health.

Operating computer with keyboard, mouse and accessories
Software for the communication system
DCF -77 radio clock
LAN crossover cable

Features

Minimum configuration:
- Midi tower housing
- Mainboard with Athlon 64 X2 2.9 GHz or equivalent
- Min. 1 GB RAM
- Min. 160 GB hard disk (HDD)
- DVD CDR/RW drive (incl. software)
- Software package for data backup
- VGA graphic card
- 3* RS232, 1* parallel, USB
- 2* LAN Ethernet (10/100/1000 MBit)
- LAN crossover cable
- Mouse and keyboard
- DCF -77 radio clock
- Windows XP Professional
- Database management system
- System software

Accessories

UPS module 230 V (on request)
Monitors (on request)

On request

Operating computer for system migration (without monitor)



Nurse call system operating computer for configuration, display, operation and call logging in a connected communication system with Clino Phon 95.
Additionally as interface to third-party systems such as paging systems, fire alarm systems, etc. Consists of computer with keyboard, mouse, HDD, FDD, DVD CDR/RW and interfaces (serial, LAN, USB).

Features

Minimum configuration:

- Midi tower housing
- Mainboard with Athlon 64 X2 2.9 GHz or equivalent
- Min. 1 GB RAM
- Min. 160 GB hard disk (HDD)
- DVD CDR/RW drive (incl. software)
- Software package for data backup
- VGA graphic card
- 3* RS232, 2* RS422, 1* parallel, USB
- 2* LAN Ethernet (10/100/1000 MBit)
- LAN crossover cable
- Mouse and keyboard
- DCF -77 radio clock
- Windows XP Professional
- SQL database management system
- Software for system connection

Equipment with application software:

- Configuration tools (communication system / Clino Phon 95)
- Allocation of room configuration
- Definition of call system functions and parameters
- Setup of call types, call type groups, call type upgrading
- For communication system, configuration of actuators to control third-party systems (e.g. light, blinds)
- Setup radio and TV programs
- Service features
- Database management system
- System management tools
- Network functions for system accesses
- Freely configurable services (zone interconnections)
- Allocation of temporal services
- Selection of call type groups for services
- Definition of targeted message forwarding between call system zones of the call system
- Freely configurable announcement functions (collective announcements)
- Selection of targets for announcements
- Interference monitoring and reporting (according to DIN VDE 0834)
- Graphic and tabular display of messages according to priority, call type and temporal input
- System messages (PR, call, malfunction)
- Call query (e.g. in combination with a master station)
- Call cancellation (e.g. in combination with a master station)
- Selecting rooms (e.g. in combination with a master station)
- Collective announcement in room or selected targets (e.g. in combination with a master station)
- Entry and management of patient data incl. management of bed assignment (manual)
- Access control via user ID (if required)

Optionally:

- Message transmission to a wireless notification system (e.g. paging system or DECT telecommunications system)
- Freely configurable recipient addresses for messages from call system zones
- Definition of display format of messages to be transferred
- Setup of different services (e.g., day, night service)
- Allocation of repetition times, acoustic call tones, etc.

Notes on system coupling:

Possible limitation of available system functions of the Clino Systems 99 / Clino Phon 95 using the system connection. Maximum system restrictions are to be observed.

Technical inspection of the connection option may be necessary.

The PC complies with the directives for designing workstations and office workplaces (BGI 650) issued by the German Federal Institute for Occupational Safety and Health.

Operating computer with keyboard, mouse and accessories
Software for the communication system
Radio clock DCF 77
LAN crossover cable
Connection cable for central control unit (PRZ)

Accessories

UPS module 230 V (on request)
Monitors (on request)

On request



Features

- Recommended minimum configuration with the rack PC (19"):
- Rack housing for distribution cabinet (19")
- Main board with Celeron T3100 1.9 GHz, Low Power
- Min. 4 GB RAM
- 2* hard drives (HDD) min. 250GB, RAID-1
- Super Multi DVD drive (incl. software)
- Software package for data backup
- VGA graphics card
- 3* RS232, 4* USB, 1* Firewire
- 2* RS422
- 3* LAN Ethernet (10/100/1000 MBit)
- Mouse and keyboard
- Windows XP Professional (MUI)
- Basic configuration "Ackermann"
- Database management system
- Application software for communication system

Rack PC for distribution cabinet (19")

Rack PC (19“) for installation in a distribution cabinet (19“) as the central interface to the system and to external systems such as a DECT system, alarm detector system and IT. This high-quality unit is used for configuration and logging of system message of the communication system. Consisting of a computer with keyboard, mouse, HDD with RAID-1 connection, DVD-CDR/RW and the system interfaces required (serial, LAN, USB). Use of a 230 V AC (19“) UPS module is recommended.

Equipped with application software for the following functions:

- Configuration tool for the communication system
- Allocation of room configuration
- Definition of nurse call system functions and parameters
- Setting up of call types, call type groups, call type enhancement
- Configuration of actuators for control of external systems (e.g. lights, blinds)
- Setting up radio and TV programs
- Service functions
- Database management system for data storage
- System management tools for system analysis
- Network functions for system access
- Freely configurable services (zone networking)
- Assignment of time-defined duties
- Selection of call type groups for duties
- Definition of specific forwarding of messages between nurse call system zones
- Freely configurable announcement functions (collective calls)
- Selection of targets for collective calls
- Fault monitoring and fault reporting (in accordance with DIN VDE 0834)
- Graphic and tabular display of messages according to priority, call type and time of call
- Presence indication PR1 and PR2
- Call messages (normal call, WC call, doctor call, priority call, etc.)
- Fault warning (in accordance with DIN DVE 0834 Application Area II)
- Call query (only in conjunction with a master station)
- Call cancellation (only in conjunction with a master station)
- Calling from rooms (only in conjunction with a master station)
- Collective call in room or selected targets (only in conjunction with a master station)
- Input and administration of patient data including bed occupation (manual)
- Access control by user identification (if necessary)
- Data output on a connected printer

Optionally:

- Message transmission to a wireless message system (e.g. personal paging system - PPS
- or telecommunications system - DECT)
- Freely configurable pager addresses for messages from nurse call system groups
- Definition of the display format for the messages to be transmitted
- Setting up of different shifts (e.g. day, night shift)
- Assignment of repeat intervals, acoustic call signals, etc.

Rack PC (19“) with accessories
Software for the communication system

Accessories

UPS module 230 V (on request)
Monitors (on request)

On request

CL Central Control Unit



Central control unit for the transmission of configuration, logging as well as interfacing to third-party systems such as a paging system or DECT. Configuration is carried out using an external PC.

CD with application software for the following functions:

- Configuration tool
- Allocation of room configuration
- Definition of call system functions and parameters
- Setup of call types, call type groups, call type upgrading
- Configuration of actuators for controlling external systems (e.g. light, blinds)
- Setup of radio and TV programs
- Service functions
- Database management system for data storage
- System management tools for systems analysis
- Network functions for system access
- Freely configurable services (zone networking)
- Allocation of temporarily defined services
- Selection of call type groups for services
- Definition of target-oriented message forwarding between zones
- Freely configurable announcement functions (collective announcements)
- Selection of recipients for collective announcements
- Fault monitoring and reporting (according to DIN VDE 0834)

Optionally:

- Message transmission to a wireless messaging system
(e.g. paging system or DECT telecommunications system)
- Freely configurable recipient addresses for messages from call system zones
- Definition of display format of messages to be transmitted
- Setup of different services (e.g. day, night service)
- Allocation of repetition times, acoustic call tones, etc.

Features

Minimum configuration:

- Mini control unit
- Mainboard with Sempron 2 GHz or equivalent
- At least 512 MB RAM
- Hard disk (HDD) min. 160 GB
- 3* RS232, 1* parallel, USB
- 2* LAN Ethernet (10/100/1000 MBit)
- LAN crossover cable
- DCF -77 radio clock
- Windows XP Professional
- Database management system
- Software for communication system

Control center with accessories
Software for the communication system
DCF 77 radio clock
LAN crossover cable

On request

19" TFT monitor



19" data monitor (TFT device) to be connected to a computer or server.

Technical Data

Rated frequency	50 ... 60 Hz
Power consumption	max. 50 W during operation, 1 W during standby
Resolution	1280 x 1024
Screen diagonal	48.3 cm
Contrast	1000:1
Luminance	250 cd/mm²
Operating temperature	+15 °C to +32 °C
Ambient temperature	5 °C ... 35 °C
Air humidity	20...80 % (non condensing)
Weight	approx. 4.3 kg
Dimensions	W: 412 mm H: 350 mm D: 62 mm (w/o stand) W: 412 mm H: 406 mm D: 200 mm (with stand) W: 100 mm H: 100 mm (VESA)

Features

- 46 cm visible diagonal
- Graphical display up to 1280 × 1024 points
- Power management according to electronic medical records
- Plug-and-play pursuant to VESA
- Tilt-swivel base

Software licenses

83WE120 **Configuration tool of the communication system**



Software module as basic software for configuration of the system using an on-site PC/ laptop with Windows XP Pro and crossover LAN cable. Option of reading out call system configuration data, modification of settings and retransmission of changes made. Storage of configuration in a system database for data backup and further use, e.g. on the operating computer of the communication system.

Administrator access rights required to be able to adapt ETH-LAN network card (10/100) to call system environment. Full TCP/IP support of the network card for ETH-LAN access required.

Memory medium with application software for the following functions:
- Configuration tool
- Allocation of room configuration
- Definition of call system functions and parameters
- Setup of call types, call type groups, call type upgrading
- Configuration of actuators for controlling external systems (e.g. light, blinds)
- Setup of radio and TV programs
- Service functions
- Database management system for data storage of the configuration
- Easy system management tools for system analysis (FTP client required)
- Network functions for system access
- Freely configurable services (zone networking)
- Allocation of temporarily defined services
- Selection of call type groups for services
- Definition of target-oriented message forwarding between call system zones
- Freely configurable announcement functions (collective announcements)
- Selection of recipients for collective announcements
- Setup of fault monitoring and reporting (according to DIN VDE 0834)

Inspection of hardware/software compatibility (PC/laptop and call system) recommended!

83WE130 Clino Call DECTplus coupling



Software module as basic software for connecting the system Clino Call DECTplus to the operating computer of the communication system. Option to adapt settings to project specific requirements of the nursing facility. Call messages from the call system are transmitted to the connected Clino Call DECTplus system according to configuration and are displayed by the configured DECTplus handsets.

Administrator access rights required to be able to adapt e.g. serial interface to system environment of the call system.

Memory Medium with application software for the following functions:
- Configuration tool with database management system for data backup
- Configuration of the serial interface (RS232 / RS422)
- Interface for general call system software (IPC)
- Freely configurable recipient addresses for each nurse call group and call type groups
- Allocation of call types to higher-level call type groups
- Setup of different services (e.g., day, night service)
- Allocation of repetition times
- Adjustment of acoustic call tones
- Filter options for recipient address
- Configuration of different escalations for each call type group
- Definition of display format of messages to be transmitted
- Text message transmission of system messages to Clino Call DECTplus
- Service functions
- Simple system management tools for system analysis (Sys Log, etc.)
- Creation of a recipient list (file)
- Password protected access

Prerequisite:
- Operating computer of the communication system with available RS232 serial interface
- Serial connection cable

Inspection of hardware/software compatibility required!

83WE140 DECT/Paging system connection via ESPA 4.4.4.



As 83WE130, but connection to the communication system via ESPA 4.4.4 or an alternative protocol.

Inspection of hardware/software compatibility required!

83WE150 Software FTC module for Esser FAT 3000



Software module as basic software for unidirectional data connection of an ESSER fire alarm system to an Ackermann call system via FAT 3000 (ESPA 4.4.4.). As a media gateway, the software module converts incoming data from the fire alarm system into call information for further processing (e.g. display) in the call system.
Configuration of the required display texts in FAT, transferred in plain text (incoming and outgoing message), as well as the option of assigning unique IDs in the call system.
Messages received from the fire alarm system are forwarded to the call system for secondary alarm and to other system software such as a graphical user interface.

Prerequisite:
- Operating computer of the communication system with available RS232 serial interface
- FAT3000 or FAT with compatible ESPA 4.4.4. transmission protocol
- ESSER fire alarm system supporting FAT3000
- Serial connection cable

The restrictions of the respective systems are to be taken into consideration. Inspection of software compatibility required!

Accessories
7608944 RS232 serial connection cable

83WE160 Software FTC module for Notifier FAT 2002



As 83WE150, but for Notifier fire alarm system.

83WE170 Software FTC module for FAT of other brands



As 83WE150, but for other brands of fire alarm systems.

83WE180 RFID card manager basic incl. PC reader



Clino Card Manager (CCM) BASIC software module for managing RFID transponders in the system used for personalized presence management by the nursing staff and other persons or device groups. Possibility to allocate different services and functions to the corresponding user groups (e.g. presence, reporting, etc.).
Combined use with the RFID PC reader for transmitting configuration data to RFID transponders. Reliable data transfer by use of Desfire technology. Creation upon software startup of so-called service RFID transponders (limited quantity) with unique/non-reproducible system access codes. Service RFID transponders are used for tamper-resistant setup and initialization of the RFID modules installed in the call system. The CCM includes the option of activating the personalized presence management function both by saving system messages and by the graphical user interface. Installation of CCM on the operating computer of the communication system.

User software for the following functions:
- Configuration tool for RFID transponder
- Definition of functions and service parameters for the nursing staff
- Configuration of area allocation and user classes
- Service functions

Use only on servers or MFIs provided by us

Nous consulter

83WE200 Software module for VITAL function monitoring



Software module as basic software for use of the call system for monitoring the vitality of care recipients in nursing facilities.
Option of defining a monitoring period requiring the interaction of a care recipient, e.g. a dedicated key activity.
Alternatively, contact activities based on the opening or closing of doors can be analyzed as vitality messages. Alarm calls are automatically triggered in the monitored rooms, if no vitality has been detected once the monitoring period ends. Alarm calls are forwarded to the workstation, the call system (if supported) and optionally to mobile DECT devices of a telecommunications installation (separate software required).

Media with user software for the following functions:
- Configuration tool with database management system for data backup
- Interface for general call system software (IPC)
- Freely configurable monitoring period
- Analysis of each nurse call group or priority configuration (configuration via BOB)
- Configuration of different call types
- Service features

Prerequisite:
- Operating computer of the communication system

Inspection of hardware/software compatibility required!

On request

Server Accounting Systems 19" Technology

Features

Recommended minimum configuration of the rack PC (19" technology):

- Rack housing for distribution cabinet (19")
- Barebone Superserver with INTEL Core I3 (min. 3GHz) CPU
- Min. 16GB 1066MHZ DDR3
- Gigabit Ethernet Controllers
- Hot-swap SATA 150GB
- One version of Windows 7 Ultimate 64Bit
- Basic configuration „Ackermann“
- Database management system
- Application software for the accounting system

Server accounting system for telephone, TV and internet services. Patient cards used in the system (ISO format) are managed via the accounting server. The system controls access to the respective user account in the accounting system. Rights are stored on the accounting server. ISO cards with contactless RFID technology (125 kHz) are issued to the patients via the pay stations and they are registered in the accounting system. The accounting server controls the patient's approval to use the available services. This unit integrates the pay stations and cash terminals into the system; they are networked via the ETH-LAN IP interface. The ISO card data are fed into the integrated patient handset. A license for 25 “iPH integrated patient handsets with a telephone function” is included.

It is equipped with application software for the following functions:

– Accounting configuration tool
– Definition of functions and parameters of the telephony and TV functions
– Setting up of pay stations, cash terminals
– Configuration of the numbers used
– Database management system for data storage
– System management tools for system analysis
– Assignment of fee structures for telephony, internet, TV
– A license package for 25 “patient handsets with a telephone function”.

79822A

Card reader for PC workstation



Card reader using RFID technology (125 kHz) for a PC workstation, equipped with a USB interface. It is used to allocate the respective patient account to the patient card with its individual parameters in the accounting system.

Technical Data

Interface	USB
Ambient temperature	5 °C ... 40 °C
Color	gray
Weight	approx. 250 g (incl. cable)
Dimensions	W: 80 mm H: 80 mm D: 28 mm

83WE190

Software License for the Accounting System

License for 25 “patient handsets with a telephone function” to extend the server's accounting system to cover telephone and TV services and internet usage.

79810E Pay Station for the Accounting System



Pay station with the option of issuing cards, upgrading the patient account and taking back cards. It controls the integrated industrial PC and is used for configuration and logging purposes. There is the option to set the maximum amount to be paid in, the coins which are accepted and other project-specific parameters. The respective patient account is allocated in the accounting system via the patient card with its individual parameters. The pay stations are operated in online mode, i.e. there is constant communication with the accounting server. A simple touch screen user interface ensures multilingual operation and a clear overview. The issue tray for coins and receipts is placed within easy reach and sight and can therefore also be used easily by wheelchair users.
The pay station is housed in a powder-coated, stainless steel safe casing, fitted with a security lock. The pay station is mounted using a wall bracket. Coins are accepted by means of a N.O. contact, electronic coin checking and a coin filter to sort the inserted coins. It is fitted with three coin cassettes to issue coins (different sorts); two of these cassettes are incorporated into the coin circulation. A sophisticated security bill validator is also integrated to accept Euro bills (up to EUR 50). The motorized chip card reader issues and takes back patient cards, whereby cards taken back are not recirculated immediately for hygiene reasons. Receipts are created for patients by the fast printer for thermal paper (80 mm wide) at a print speed of up to 150 mm / sec.

Features

- Secure, stainless steel safe casing
- Issue and return at an ergonomic height
- Equipped for the disabled in accordance with DIN 24972
- Extremely comfortable to use
- Touch screen user interface
- Three coin cassettes
- Dispenser for patient cards
- Motorized chip card reader
- Swift receipt printer
- Uninterrupted power supply
- Integrated LAN interface
- Three-point lock via a bolt drive
- Drill-resistant clip-in cylinder

Technical Data

Rated voltage	230 V AC
Ambient temperature	5 °C ... 40 °C
Storage temperature	0 °C ... 60 °C
Mounting	wall bracket
Air humidity	20...85 % (non condensing)
Material	stainless steel
Color	white, similar to RAL9016 (powder-coated)
Weight	approx. 60 kg
Dimensions	W: 380 mm H: 740 mm D: 296 mm

Pay station, wall bracket

Accessories

79809A1 Thermal Paper Roll for the Pay Station

79809A1 Thermal Paper Roll for the Pay Station



Replacement paper roll in high-quality thermal paper for the pay station's thermal printer.

Technical Data

Material	thermal Paper
Color	white
Weight	approx. 900 g
Dimensions	W: 80 mm H: 120 mm

79821A

Patient Card for the Accounting System



ISO card for the patients using contactless RFID technology (125 kHz). It is used to gain access to the respective user account in the accounting system. Rights are stored on the accounting server. Cards are issued via the pay stations or at the PC workstation. The ISO card data are used in conjunction with the patient handset Systevo Com.

Technical Data

Frequency	125 kHz
Material	PVC
Color	white
Weight	approx. 6 g
Dimensions	W: 85.6 mm H: 54 mm D: 1 mm

79823A1

DSLAM 48 Port Annex A, Master Type



48 Port DSLAM to use existing telecommunications infrastructure (a / b or ISDN) for DSL technology. It provides up to 48 ADSL interfaces in connection with the wall module Systevo Smart at the point of care for a high level of data transmission and flexibility in the ward area. It has integrated splitters, the requisite DSL control electronics and wired network interfaces. It automatically recognizes 100 / 1000 Mbps interfaces for the network connections, while supporting QoS control. It is fitted with two plug-in GBIC slots in “Small” form factor (SFP) for the optional fiber optic connection to Gigabit Ethernet. It includes integrated safety features such as IEEE 802. 1 x port-based authentication and access control lists to ensure that only authorized devices / applications have access to the LAN. Temperature and overheating is monitored to ensure optimum functionality of the device.

Features

- Supports ADSL, ADSL2, ADSL2+ via POTS / ISDN
- Up to 48 ADSL2 / 2+ interfaces
- 2 x 100 / 1000 BASED TX
- 2 x GBE interfaces
- Integrated splitters
- Graphical WEB interface for configuration
- Monitoring of temperature and overheating
- RS-232 console

Technical Data

Rated voltage	230 V AC
Rated frequency	50 ... 60 Hz
Ambient temperature	5 °C ... 50 °C
Storage temperature	0 °C ... 60 °C
Mounting	cabinet (19")
Air humidity	20...85 % (non-condensing)
Material	metal
Color	gray
Dimensions	W: 440 mm H: 66 mm D: 391 mm (1,5 HE 19")

48-port DSLAM annex A, accessory

Accessories

79823B1 GBIC Module, Multimode Type
79823F1 Multimode fiber SC-LC Sx
79823Z1 RJ21 – RJ21 Connectors Incl. Patchboard (24 RJ11 Ports)
79823Z2 RJ21 Telephone Connector to Open End

79823Z1

RJ21 – RJ21 Connectors Incl. Patchboard (24 RJ11 Ports)



RJ21 cable with patchboard to provide wiring for the IP DSLAM. It combines the individual cables of the existing telecommunications system with the patchboard of the IP DSLAM via RJ11 sockets.

Technical Data

Ambient temperature	5 °C ... 40 °C
Color	gray
Cable length	2 m

79823Z2 RJ21 Telephone Connector to Open End



RJ21 cable to connect the IP DSLAM with the patchboard, in which the individual pairs of wires are already incorporated (typically in RJ11 sockets). It combines the individual cables of the existing telecommunications system with the IP DSLAM.

Technical Data

Ambient temperature	5 °C ... 40 °C
Color	gray
Cable length	10 m

79823B1 GBIC Module, Multimode Type



GBIC Module AGM731F as a plug-in board for a standard SFP GBIG slot. A 1000Base-SX connection for multimode fiber-optics (FO) with Gigabit-speed smart switches and managed switches is provided.

Technical Data

Mounting	Plug-in card for switch

Features

- Plug-in board for system switch
- SFP GBIC fiber module
- 1000BASE-SX Standard
- LC connector
- Supports 50 µm (length: 550 m) and 62.5 µm (length: 260 m)
- Multimode fiber (MMF) cable

79823F1 Multimode fiber SC-LC Sx



High-quality fiber optic multimode patch cable 50 / 125 µm, duplex, LC / PC to SC / PC, length 2 m. It connects the GBIC module (LC) with a patch panel (LC).

Features

- 1000BASE standard
- SC / LC connector
- 50µm multimode fiber (MMF) cable
- Fiber type: Multimode 50 µm
- Speed: 1000 Base SX
- Length: 2 m
- Socket 1: LC
- Socket 2: SC

79823C1 System-Switch GSM7328S Layer3, 24-Port



Gigabit Ethernet switch for maximum data transmission and flexibility in the backbone area. It includes a fully manageable “core” switch with 24 ports and automatic recognition of the 10 / 100 / 1000 Mbps network interface for the wired connections; all connections are QoS controlled. It is fitted with four plug-in GBIC slots in “Small” form factor (SFP) for the optional fiber optic connection to Gigabit Ethernet. In addition, it is equipped with four high-speed slots to allow modular expansion for a 10-Gigabit Ethernet or a 24-Gigabit stacking connection. The layer 3 switch functionality provides reliable routing between VLAN and network segmentation, it is possible to configure a stack of up to eight units in a bi-directional loop with 48 Gbps (one IP address). It includes integrated safety features such as IEEE 802. 1 x port-based authentication and access control lists to ensure that only authorized devices / applications have access to the LAN. Security management is provided via secure socket layer (SSLv3) for the web interface and secure shell (SSH) for command line entry. Several switches can be controlled using SNMPv3 of the ProSafe Network Management Software NMS100 (Option).

Features

- Manageable core switch
- Stack configuration possible (max. 8 switches)
- Forwarding mode: Store-and-forward
- High performance: 144 Gbps; 107.1 Mpps
- IEEE 802.3i / u / ab / z / x / ae
- 10BASE-T
- 100BASE-TX / FX
- 1000BASE-T / X
- IEEE 802.3x Flow Control
- IEEE 802.3ae 10000BASE-X
- 24 RJ-45 10 / 100 / 1000 ports with auto uplink
- Four shared SFP ports for fiber-optic Gigabit interfaces
- Two built-in 10 Gigabit SFP+ ports
- Two optional 10 Gigabit module connections
- RS-232 console

Technical Data

Rated voltage	230 V AC
Rated frequency	50 ... 60 Hz
Power consumption	66 W
Ambient temperature	5 °C ... 50 °C
Storage temperature	0 °C ... 60 °C
Mounting	cabinet (19 ")
Air humidity	20...85 % (non-condensing)
Material	metal
Color	gray
Weight	approx. 6.3 kg (without plug)
Dimensions	W: 440 mm H: 43 mm D: 391 mm (1 HE 19")

Gigabit L3 Managed Switch, Null modem cable, accessories (rubber feet, power cord, rack mounting kit, installation guide CD-ROM with 30-day trial version of NMS100)

Accessories

79823B1 GBIC Module, Multimode Type
79823F1 Multimode fiber SC-LC Sx

79823C2 System-Switch GS724TS Layer2, 24-Port



Gigabit Ethernet switch for high level data transmission and flexibility in the ward area. It includes a controllable switch with 24 ports and automatic recognition of the 10 / 100 / 1000 Mbps network interface for the wired connections; all connections are QoS controlled. It is fitted with four plug-in GBIC slots in “Small” form factor (SFP) for the optional fiber optic connection to Gigabit Ethernet. It can be configured to a stack of up to six units (one IP address). It includes integrated safety features such as IEEE 802. 1 x port-based authentication and access control lists to ensure that only authorized devices / applications have access to the LAN.

Features

- Stack configuration possible (max. 6 switches)
- Forwarding mode: Store-and-forward
- High performance: 48 Gbps
- IEEE 802.3u / ab / z / x
- 10BASE-T
- 100BASE-TX
- 1000BASE-T / X
- IEEE 802.3x Flow Control
- 24 RJ-45 10 / 100 / 1000 ports with auto uplink
- Four shared SFP ports for fiber-optic Gigabit interfaces
- Web-based configuration
- Backup / restoration (config.)
- Password access control
- Capable of firmware upgrade

Technical Data

Rated voltage	230 V AC
Rated frequency	50 ... 60 Hz
Power consumption	36 W
Ambient temperature	5 °C ... 50 °C
Storage temperature	0 °C ... 60 °C
Mounting	cabinet (19 ")
Air humidity	20...85 % (non-condensing)
Material	metal
Color	blue-gray
Weight	approx. 2.9 kg (without plug)
Dimensions	W: 440 mm H: 43 mm D: 400 mm (1HE 19")

Gigabit L2 switch, stacking cables, accessory kit (rubber feet, power cord, rack mounting kit, installation instructions)

Accessories

79823B1 GBIC Module, Multimode Type
79823F1 Multimode fiber SC-LC Sx

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 protected, 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	IP40
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 convenient 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. Start up 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 touchscreen 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:

- Desktop 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	IP20
Material	PC + ABS - FR
Color	upper housing: white, similar to RAL 9016 lower housing: gray, similar to RAL 7035
Weight	approx. 1332 g
Connecting cable	2.35 m
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

Mounting	in flush-mounting box, DIN 49073
Type of protection	IP 40 when installed incl. suitable cover plate
Color	white, similar to RAL 9016
Dimensions	W: 71 mm H: 71 mm D: 25 mm (installation depth)

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)

76921B1 **Room terminal with display and doctor call**



Room terminal with integrated operating elements such as presence buttons, call and doctor call button. High-quality LCD with additional multifunction buttons. Serves as a controller for patient and function room with speech and offers connecting options for active databus components like bed modules and call modules. Equipped with dual line, 8-character, alphanumeric LCD with background illumination, also legible from a greater distance. If presence is set, the system message with the highest priority (e.g. call, malfunction or presence) is indicated optically and acoustically - the scroll buttons can be used to switch to other messages. Speech (incoming and outgoing) the hands-free mode via integrated speaker and microphone in high audio quality due to digital transmission technology. Easy call setup, also to selective targets displayed (calls, presences), via multifunction keys.

The room terminal supports the receipt of announcements and, if configured properly, the initiation of announcements to predefined targets. Option of displaying and selecting/deselecting services (interconnections) via function keys.

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 the configuration data including the 8-character alphanumeric text for the room and bed units, display and audio parameters, special functions and additional display texts (call types, etc.). Equipped with a service socket for the configuration module and selection switches for quiescent/working current. Support of startup due to local service menu and extended remote access functions. Simple installation using simple mounting technology in combination with accompanying connection board. Room terminal integrated in corridor databus. Upgradeable to future system firmware due to trendsetting Flash technology.

- Corridor databus for digital data and audio transmission
- Bed databus for controlling up to 8 bed modules, call modules (also with speech function)
- Analog audio line for bedside communication
- Configuration socket for selectable decentralized configuration in conjunction with the configuration module
- Service socket for connecting analysis tools
- Bed identification for up to three beds with call circuit monitoring (with passive call units)
- Quiescent/working current option
- Compatibility mode for former/latest DIN VDE 0834
- Service and remote access function

Features

Operating controls:

- Presence push-button PR1
- Presence push-button PR2
- Call push-button
- Doctor call push-button
- Multifunction keys for: Call query, call handling, display scroll button, service key

- 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

Technical Data

Operating voltage	24 V DC
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)

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
76919T1	Desktop unit for room terminal

76919T1 — Desk top unit for room terminal



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

Technical Data

Connecting cable	2 m

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)

74910C5 — Display module for bed / corridor databus



Display module with high-quality LCD and integrated call/cancel push-button to indicate presence of the nursing staff. Equipped with dual line, 8-character, alphanumeric LCD with background illumination, also legible from a greater distance (reading angle 110 degrees). If presence is set, system messages such as calls, malfunctions and presences are displayed with top priority, rolling if necessary, with several messages of identical priority. Acoustic call forwarding, if presence is set, and option for triggering further calls.

Display module either integrated in the corridor databus or the bed databus. Upgradable to future system firmware due to trendsetting Flash technology.

Features

- Integrated LCD (2 x 8 characters)
- Indication of system messages
- Sound generator for call forwarding
- Button for presence function
- LED reminder lamp (green)
- Button for call function
- LED orientation lamp and reassurance lamp, red
- Connection via bed databus or corridor databus

Technical Data

Mounting	in flush-mounting box, DIN 49073
Type of protection	IP40
Color	white, similar to RAL 9016
Dimensions	W: 68 mm H: 68 mm

Replacement for 74910C2/C3/C4

Display module, flush-mounted connection, connection terminals

Accessories

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

74911B5 — Universal display module for bed / corridor databus



Universal display module with high-quality LCD and integrated function keys for use by nursing staff. Equipped with dual line, 8-character, alphanumeric LCD with background illumination, also legible from a greater distance (reading angle 110 degrees). If presence is set in the allocated room, system messages such as calls, malfunctions and presences are displayed with top priority, rolling if necessary, with several messages of identical priority. "Info mode" for tamper-resistant operation configurable for use in facility corridors for example.
Display and selection/deselection of services (interconnections) via function keys. Time display, if system time is available. Universal display module either integrated in the corridor databus or the bed databus. Upgradable to future system firmware due to trendsetting Flash technology.

Features

- Integrated LCD (2 x 8 characters)
- Indication of system messages
- Display system time
- Status change of services
- Sound generator for call forwarding
- White function keys
- Integrated LEDs for status display
- Connection via bed databus or corridor databus

Technical Data

Mounting	in flush-mounting box, DIN 49073
Type of protection	IP40
Color	white, similar to RAL 9016
Dimensions	W: 68 mm H: 68 mm

Duty selection module, flush-mounted connection, connection terminals

Accessories

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

74913A1 RFID module with call and cancel push-button



RFID module with integrated call and cancellation key for personified presence management by nursing staff as well as other persons or device groups.

Wireless transfer of characteristics of the RFID transponder in the RF field (e.g., personal user recognition of nursing staff member) to the RFID module (scanning range up to 10 cm) for forwarding to the system control center and Clino Card Manager. Reliable data transfer using Desfire technology.

Simple operation due to optical or acoustic confirmation of successful identification of an RFID transponder or RFID chip.

Acoustic call indication if presence set as well as option of triggering further calls. Option of anonymous presence indication using presence button. Integration of the RFID module is performed either in the corridor databus or the bed databus. Upgradeable to future system firmware due to trendsetting Flash technology.

Features

- Integrated RFID reader
- Scanning range up to 10 cm
- LED reminder lamp (green)
- Sound generator for call forwarding
- Button for presence function
- Button for call function
- LED orientation lamp and reassurance lamp, red
- Connection via bed databus or corridor databus
- Desfire technology

Technical Data

Mounting	in flush-mounting box, DIN 49073
Type of protection	IP40
Material	PC + ABS - FR
Color	white, similar to RAL 9016
Dimensions	W: 68 mm H: 68 mm

Accessories

74913AA RFID transponder card
74913AB RFID transponder chip
88914A3 Mounting frame for cover plate (single)
88914B3 Mounting frame for cover plate (double)
88914C3 Mounting frame for cover plate (triple)

74913AA RFID transponder card



RFID transponder card for personified presence. Storage of user data or from user profiles in access-protected data structures. Allocation of the configuration data using the Clino Card Manager in combination with a PC RFID module.

Technical Data

Material	PC
Color	white
Weight	approx. 10 g
Dimensions	W: 85 mm H: 55 mm D: 1 mm

Supplied with card holder

74913AB RFID transponder chip



RFID transponder chip for personified presence. Storage of user data or from user profiles in access-protected data structures.
Allocation of the configuration data using the Clino Card Manager in combination with a PC RFID module.

Technical Data

Material	PC
Color	black / gray
Weight	approx. 10 g
Dimensions	W: 30 mm H: 40 mm D: 5 mm

73642B3 — Call / cancel push-button



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

Technical Data

Mounting	in flush-mounting box, DIN 49073
Type of protection	IP40, when installed incl. suitable cover plate
Dimensions	W: 71 mm H: 71 mm D: 25 mm (installation depth)

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)

Room terminals

76921B1 Room terminal with display and doctor call



Features

Operating controls:

- Presence push-button PR1
- Presence push-button PR2
- Call push-button
- Doctor call push-button
- Multifunction keys for: Call query, call handling, display scroll button, service key

- 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

Room terminal with integrated operating elements such as presence buttons, call and doctor call button. High-quality LCD with additional multifunction buttons. Serves as a controller for patient and function room with speech and offers connecting options for active databus components like bed modules and call modules. Equipped with dual line, 8-character, alphanumeric LCD with background illumination, also legible from a greater distance. If presence is set, the system message with the highest priority (e.g. call, malfunction or presence) is indicated optically and acoustically - the scroll buttons can be used to switch to other messages. Speech (incoming and outgoing) the hands-free mode via integrated speaker and microphone in high audio quality due to digital transmission technology. Easy call setup, also to selective targets displayed (calls, presences), via multifunction keys.

The room terminal supports the receipt of announcements and, if configured properly, the initiation of announcements to predefined targets. Option of displaying and selecting/deselecting services (interconnections) via function keys.

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 the configuration data including the 8-character alphanumeric text for the room and bed units, display and audio parameters, special functions and additional display texts (call types, etc.). Equipped with a service socket for the configuration module and selection switches for quiescent/working current. Support of startup due to local service menu and extended remote access functions. Simple installation using simple mounting technology in combination with accompanying connection board. Room terminal integrated in corridor databus. Upgradeable to future system firmware due to trendsetting Flash technology.

- Corridor databus for digital data and audio transmission
- Bed databus for controlling up to 8 bed modules, call modules (also with speech function)
- Analog audio line for bedside communication
- Configuration socket for selectable decentralized configuration in conjunction with the configuration module
- Service socket for connecting analysis tools
- Bed identification for up to three beds with call circuit monitoring (with passive call units)
- Quiescent/working current option
- Compatibility mode for former/latest DIN VDE 0834
- Service and remote access function

Technical Data

Operating voltage	24 V DC
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)

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
76919T1	Desktop unit for room terminal

76921BR Room terminal with dotoctor call and display - Russian

Same as 76921B1 but Russian.

76920B1 Room terminal without display, with doctor call



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

Technical Data

Operating voltage	24 V DC
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)

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.

76919B1 Flush-mounted connection board for room terminal



As 76919A1, but as flush-mounted connection board for room terminals.

Technical Data

Material	PC + ABS - FR
Color	white, similar to RAL 9016
Dimensions	W: 175 mm H: 280 mm D: 15 mm (incl. room terminal) D: 30 mm (installation depth)

76919C1 Cavity wall connection board for room terminal



As 76919A1, but as cavity wall connection for room terminal.

Technical Data

Material	PC + ABS - FR
Color	white, similar to RAL 9016
Dimensions	W: 175 mm H: 280 mm D: 15 mm (incl. room terminal) D: 50 mm (installation depth)

Room electronic modules

72575N1 Room electronic module EM 340 w/o bed databus, silver



Room electronic module EM 340 with integrated signal lamp, designed with four lamp sections and power-saving LED technology. Serves as a controller for patient and function room without speech function with connecting options for call 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. Improved start-up due to local configuration options (e.g. addressing for bed databus) via service button and extended remote access functions. Easy installation due to service-friendly plugging in combination with accompanying connection board. Upgradable to future system firmware due to trendsetting Flash technology.

- 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
- Service and remote access functions
- Applicable in all Systems 99
- Optional: Relay and buzzer unit

Features

- Room calls: Normal call, emergency call, diagnostic call, doctor call
- 2 bed identification with standard call units
- 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: Short-circuit resilient, call circuit monitoring

Technical Data

Mounting	surface mounting
Type of protection	IP 20
Material	PC + ABS - FR
Color	silver, similar to RAL 9006 lamp cover: white, translucent
Dimensions	W: 120 mm H: 120 mm D: 47 mm (incl. connection board)

Accessories

72575Z1	Connection board for EM 340 with/without bed databus, silver
72556T1	Adapter for name plate xS1, silver
72556S1	Name plate for LED corridor lamp CL340
72556L1	Lighting for name plate

72575N2 Room electronic module EM 341 w/o bed databus, white



As 72575N1, but white.

Technical Data

Mounting	surface mounting
Type of protection	IP 20
Material	PC + ABS - FR
Color	white, similar to RAL 9016 lamp cover: white, translucent
Dimensions	W: 120 mm H: 120 mm D: 47 mm (incl. connection board)

Accessories

72575Z2	Connection board for EM 341 with/without bed databus, white
72556T2	Adapter for name plate xS2, white
72556S2	Name plate for LED corridor lamp CL 341
72556L1	Lighting for name plate

Features

- Room calls: Normal call, emergency call, diagnostic call, doctor call
- 2 bed identification with standard call units
- 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: Short-circuit resilient, call circuit monitoring

72575P1 — Room electronic module EM 340 with bed databus, silver



As 72575N1, but with following additional characteristics:

- Design with bed databus for the connection of active bed databus components

Technical Data

Mounting	surface mounting
Type of protection	IP20
Material	PC + ABS - FR
Color	silver, similar to RAL 9006 lamp cover: white, translucent
Dimensions	W: 120 mm H: 120 mm D: 47 mm (incl. connection board)

Only in conjunction with 72556S1 and 72556S2

Features

- Room calls: Normal call, emergency call, diagnostic call, doctor call
- 2 bed identification with standard call units
- 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: Short-circuit resilient, call circuit monitoring

Accessories

72575Z1	Connection board for EM 340 with/without bed databus, silver
72556T1	Adapter for name plate xS1, silver
72556S1	Name plate for LED corridor lamp CL340
72556L1	Lighting for name plate

72575P2 — Room electronic module EM 341 with bed databus, white



As 72575N2, but with following additional characteristics:

- Design with bed databus for the connection of active bed databus components

Technical Data

Mounting	surface mounting
Type of protection	IP20
Material	PC + ABS - FR
Color	white, similar to RAL 9016 lamp cover: white, translucent
Dimensions	W: 120 mm H: 120 mm D: 47 mm (incl. connection board)

Features

- Room calls: Normal call, emergency call, diagnostic call, doctor call
- 2 bed identification with standard call units
- 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: Short-circuit resilient, call circuit monitoring

Accessories

72575Z2	Connection board for EM 341 with/without bed databus, white
72556T2	Adapter for name plate xS2, white
72556S2	Name plate for LED corridor lamp CL 341
72556L1	Lighting for name plate

72575Z2 — Connection board for EM 341, white

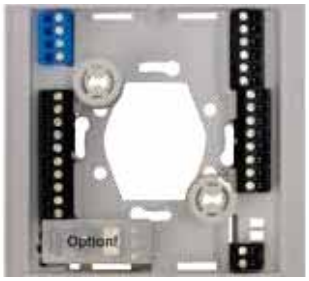


Connection board for room electronic module EM 341 with and w/o bed databus. Optimized setup and wiring due to fixed screw terminals. Prepared for inclusion of relay module with buzzer unit.

Technical Data

Material	PC + ABS - FR
Color	white, similar to RAL 9016
Dimensions	W: 115 mm H: 110 mm D: 25 mm

72575Z1 Connection board for EM 340, silver



As 72575Z2, but in silver.

Technical Data

Material	PC + ABS - FR
Color	silver, similar to RAL 9006
Dimensions	W: 115 mm H: 110 mm D: 25 mm

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.

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

Mounting	surface mounting
Type of protection	IP20
Material	PC
Color	see connection board lamp cover: white, translucent
Dimensions	W: 110 mm H: 110 mm D: 75 mm (w/o connection board) W: 158 mm H: 110 mm D: 87 mm (with 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, gray
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

72570Z1 Connection board EM 140 without bed databus, gray

As 72570Z2, but gray.

Technical Data

Material	PC + ABS - FR
Color	gray, similar to RAL 7040
Dimensions	W: 158 mm H: 110 mm D: 35 mm

72571P1 Room electronic module EM 140 (4 lamps) with bed databus



As 72570P1, but with following additional characteristics:

- Design with bed databus for the connection of active bed databus components

Technical Data

Mounting	surface mounting
Type of protection	IP20
Material	PC
Color	see connection board lamp cover: white, translucent
Dimensions	W: 110 mm H: 110 mm D: 75 mm (w/o connection board) W: 158 mm H: 110 mm D: 87 mm (with connection board)

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
- WC calls: Normal call, enhanced call, WC emergency call
- Cancellation and presence: Combined cancellation/presence, Presence 1 (green) separate cancellation for bathroom / WC
- Acoustic signals: Call transfer for normal calls and emergency calls, doctor calls, staff call, meal call
- Optical signals: WC call lamp (white), corridor lamp (red), presence lamp (green)
- Security function: Short-circuit resilient outputs, call circuit monitoring

Accessories

72571Z2 Connection board EM 140 with bed databus, white
72571Z1 Connection board EM 140 with bed databus, gray
88893AV Dummy cover plate for room electronic module

72571Z2 Connection board EM 140 with bed databus, white



Connection board for room electronic module 72571xx and 72573xx 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

72571Z1 Connection board EM 140 with bed databus, gray

As 72570Z2, but gray.

Technical Data

Color	gray, similar to RAL 7040

88893AV Dummy cover plate for room electronic module

"Blind" filler panel to fit on the room electronic module EM 140 – the internal corridor lamp needs to be disconnected. An external corridor lamp can be operated.

One filler panel is supplied with part no. 72583A1.

5 pcs

72585C Room electronic module EM 230



Room electronic module with integrated room signal lamp designed with three 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 selection switch for quiescent/working current, VDE compatibility mode, option to switch off the signal lamps (possibly in combination with dummy cover plate) as well as connection plug for room signal lamp CL 340.
Allocation of an 8-character alphanumeric text for the room and bed units. Upgradable to future system firmware due to trendsetting Flash technology.

- Design without bed databus
- Signal lamp using power-saving long-life LED technology
- Bed identification for two beds with call circuit monitoring
- Switchable signal lamps
- Quiescent/working current option
- Compatibility mode for former/latest DIN VDE 0834
- Can only be used in combination with 72660x

Features

- 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

Technical Data

Mounting	in flush-mounting box, DIN 49073
Type of protection	IP 40 (IP 44 with sealing kit)
Dimensions	W: 70 mm H: 70 mm D: 37.5 mm D: 35 mm (installation depth)

For installation depth of 35 mm, only in connection with deep flush-mounted switch box!

Accessories

88910A3 Dummy cover plate
88883CA Cover plate with lamp cell for EM 230
89733F1 Adapter cable

88883CA Cover plate with 3 lamp sections for EM 230



Cover plate (3 lamp sections) for 72585C.

Technical Data

Material	PC + ABS - FR
Color	lamp cover: white, translucent lamp cover: white, translucent
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)

89733F1 **Adapter cable for EM 230**



Adapter cable for the room electronic module (Part No.72585C) for direct connection of the CL 340 signal lamp.

Corridor lamps

72556D1 LED corridor lamp CL 340, silver



Stylish LED light (with optional name plate) as a room signal lamp using LED technology for highest architectural standards. It is also possible to mount the LED lamp rotated by approximately 180 degrees. The color sequence remains the same due to the lamp insert which can also be rotated.
Usage of an optional name plate is possible. Optionally with or without lighting element for illumination of the name plate.

Technical Data

Installation	on sm installation box or directly on the wall
Color	silver, similar to RAL 9006 (housing) LEDs white, red, green, yellow
Dimensions	W: 120 mm H: 119 mm D: 42.4 mm

Incl. connection box

Accessories

72556S1 Name plate for LED corridor lamp CL340
72556L1 Lighting for name plate

72556D2 LED corridor lamp CL 341, white



As 72556D1, but white.

Technical Data

Installation	on sm installation box or directly on the wall
Color	white, similar to RAL 9016 (housing) LEDs white, red, green, yellow
Dimensions	W: 120 mm H: 119 mm D: 42.4 mm

Incl. connection box

Accessories

72556S2 Name plate for LED corridor lamp CL 341
72556L1 Lighting for name plate

72556S1 Name plate for LED corridor lamp CL340



Can be used individually and in combination with LED lamp. Labeling is easy by replaceable. The label is removed by taking off the translucent cover.

Technical Data

Color	silver, similar to RAL 9006 (housing)
Dimensions	W: 120 mm H: 108 mm D: 30 mm

Accessories

72556T1 Adapter for name plate in conjunction with EM340

72556S2 Name plate for LED corridor lamp CL 341



As 72556S1, but white.

Technical Data

Color	white, similar to RAL 9016 (housing)
Dimensions	W: 120 mm H: 108 mm D: 30 mm

Accessories

72556T1 Adapter for name plate in conjunction with EM340

72556L1 Lighting for name plate



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

72556T1 Adapter for name plate in conjunction with EM340



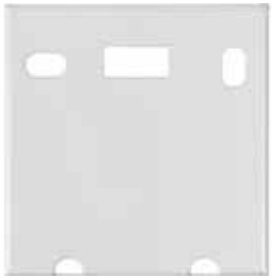
Mounting adapter for height adjustment between nameplate and in-room electronic module EM 340. The mounting adapter is used when the installation of the name badge in conjunction with the room electronics module has to be made.

Technical Data

Color	silver, similar to RAL 9006 (housing)

Adapter for name plate

72556T2 Adaptor for name plate xS2, RAL 9016



As 72556T1, but white.

Technical Data

Color	white, similar to RAL 9016 (housing)

Adapter for name plate

72569DL Corridor lamp CL141 (4 lamps)



As 72569CL, but 4 lamp sections.

Technical Data

Mounting	surface mounting
Type of protection	IP40
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

72569Z2 Connection board for corridor lamps CL13x/14x, gray

As 72569Z4, but gray.

Technical Data

Material	PC + ABS - FR
Color	gray, similar to RAL 7040
Dimensions	W: 158 mm H: 110 mm D: 35 mm

72555B1 **Corridor lamp CL 220 (red/green)**



Corridor lamp for comfort LED technology with 2 lamp sections for installation in a round flush-mounting switch box.

Technical Data

Mounting	in flush-mounting box, DIN 49073
Type of protection	IP40
Color	white, similar to RAL 9016 (cover plate) LED: red, green
Weight	approx. 67 g
Dimensions	W: 71 mm H: 71 mm W: 81 mm H: 81 mm (incl. cover plate and mounting frame) D: 25 mm (installation depth)

Signal lamp, cover plate, frame

72555C1 **Corridor lamp CL 230 (red/white/green)**



As 72555B1, but with 3 lamp sections.

Technical Data

Mounting	in flush-mounting box, DIN 49073
Type of protection	IP40
Color	white, similar to RAL 9016 (cover plate) LED: red, white, green
Weight	approx. 67 g
Dimensions	W: 71 mm H: 71 mm W: 81 mm H: 81 mm (incl. cover plate with frame) D: 25 mm (installation depth)

72557B3 **Name plate with corridor lamp CL 420A (red/green)**



Self-labeling element with blank insert for LED room signal lamp to meet individual aesthetic requirements.

Components:
- Aluminum strand profile
- Painted silver, similar to RAL 9006
- Pre-bent cover plate made of anti-glare plexiglass
- LED signal lamps red, green
- Translucent insert for self-labeling

Technical Data

Color	silver, similar to RAL 9006
Dimensions	W: 160 mm H: 210 mm D: 18 mm

Accessories
72557Z1 Paper for CL 4xx name plates

72557B1 **Name plate with corridor lamp CL 420 (red/green)**



As 72557B3, but 160 mm high.

Technical Data

Color	silver, similar to RAL 9006
Dimensions	W: 160 mm H: 160 mm D: 18 mm

Accessories
72557Z1 Paper for CL 4xx name plates

72557C3 Name plate with corridor lamp CL 430A (red/green/white)



As 72557B3, but with red, green and white LED lamps.

Technical Data

Color	silver, similar to RAL 9006
Dimensions	W: 160 mm H: 210 mm D: 18 mm

Accessories

72557Z1 Paper for CL 4xx name plates

72557C1 Name plate with corridor lamp CL 430 (red/green/white)

As 72557B1, but with red, green and white LED lamps.

Technical Data

Color	silver, similar to RAL 9006
Dimensions	W: 160 mm H: 160 mm D: 18 mm

Accessories

72557Z1 Paper for CL 4xx name plates

72557S1 Name plate CL400

Self-labeling element with blank insert to meet individual aesthetic requirements.

Components:
- Aluminum strand profile
- Painted silver, similar to RAL 9006
- Pre-bent cover plate made of anti-glare plexiglass
- Translucent insert for self-labeling

Technical Data

Color	silver, similar to RAL 9006
Dimensions	W: 160 mm H: 160 mm D: 18 mm

5 pcs.

72557Z1 Paper for CL 4xx name plates

Blank insert for CL4xx self-labeling elements.

25 pcs. Translucent inserts for self-labeling

72557ZJ Vacuum lifting pad for exchange of the foil

Suction unit for lifting the pre-bent cover plate made of anti-glare plexiglass.
Required to replace the foil insert.

Room units

74910C5 Display module for bed / corridor databus



Display module with high-quality LCD and integrated call/cancel push-button to indicate presence of the nursing staff. Equipped with dual line, 8-character, alphanumeric LCD with background illumination, also legible from a greater distance (reading angle 110 degrees). If presence is set, system messages such as calls, malfunctions and presences are displayed with top priority, rolling if necessary, with several messages of identical priority. Acoustic call forwarding, if presence is set, and option for triggering further calls.

Display module either integrated in the corridor databus or the bed databus. Upgradable to future system firmware due to trendsetting Flash technology.

Features

- Integrated LCD (2 x 8 characters)
- Indication of system messages
- Sound generator for call forwarding
- Button for presence function
- LED reminder lamp (green)
- Button for call function
- LED orientation lamp and reassurance lamp, red
- Connection via bed databus or corridor databus

Technical Data

Mounting	in flush-mounting box, DIN 49073
Type of protection	IP40
Color	white, similar to RAL 9016
Dimensions	W: 68 mm H: 68 mm

Replacement for 74910C2/C3/C4

Display module, flush-mounted connection, connection terminals

Accessories

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

74913A1 RFID module with call and cancel push-button



RFID module with integrated call and cancellation key for personified presence management by nursing staff as well as other persons or device groups.

Wireless transfer of characteristics of the RFID transponder in the RF field (e.g., personal user recognition of nursing staff member) to the RFID module (scanning range up to 10 cm) for forwarding to the system control center and Clino Card Manager. Reliable data transfer using Desfire technology.

Simple operation due to optical or acoustic confirmation of successful identification of an RFID transponder or RFID chip.

Acoustic call indication if presence set as well as option of triggering further calls. Option of anonymous presence indication using presence button. Integration of the RFID module is performed either in the corridor databus or the bed databus. Upgradeable to future system firmware due to trendsetting Flash technology.

Features

- Integrated RFID reader
- Scanning range up to 10 cm
- LED reminder lamp (green)
- Sound generator for call forwarding
- Button for presence function
- Button for call function
- LED orientation lamp and reassurance lamp, red
- Connection via bed databus or corridor databus
- Desfire technology

Technical Data

Mounting	in flush-mounting box, DIN 49073
Type of protection	IP40
Material	PC + ABS - FR
Color	white, similar to RAL 9016
Dimensions	W: 68 mm H: 68 mm

Accessories

74913AA RFID transponder card
74913AB RFID transponder chip
88914A3 Mounting frame for cover plate (single)
88914B3 Mounting frame for cover plate (double)
88914C3 Mounting frame for cover plate (triple)

74913AA — RFID transponder card



RFID transponder card for personified presence. Storage of user data or from user profiles in access-protected data structures. Allocation of the configuration data using the Clino Card Manager in combination with a PC RFID module.

Technical Data

Material	PC
Color	white
Weight	approx. 10 g
Dimensions	W: 85 mm H: 55 mm D: 1 mm

Supplied with card holder

74913AB — RFID transponder chip



RFID transponder chip for personified presence. Storage of user data or from user profiles in access-protected data structures.
Allocation of the configuration data using the Clino Card Manager in combination with a PC RFID module.

Technical Data

Material	PC
Color	black / gray
Weight	approx. 10 g
Dimensions	W: 30 mm H: 40 mm D: 5 mm

74188A1 — Bed module



With the bed module, all required call and cancel functions are available directly at bedside: patient handset, pear push-button or multiple push-button (connection via auto-release plug). Thus, each bed is provided with a speech facility integrated in the patient handset to allow communication (discreet / hands-free) with the nursing staff. A maximum of 8 bed modules can be connected to the room terminal via the bed databus. In conjunction with a control output and an actuator unit, several control functions such as light control can be set up.

Technical Data

Ambient temperature	5 °C ... 55 °C
Type of protection	IP40
Material	PC + ABS - FR
Color	white, similar to RAL 9016
Weight	approx. 170 g
Version	for sm, fm and cavity wall installation
Dimensions	W: 228 mm H: 81 mm D: 45 mm (SM / incl. bed module)

Codage L pour les poires et les manipulateurs

Bed module, button set surface-mounted/flush-mounted/cavity wall (red/green) and MSU (gray with red/green icon)

Features

Components:
- 1 call push-button (red) with LED reassurance lamp and locator lamp
- 1 connector (L) for the auto-release plug for connecting the patient handset, a pear push-button or a multiple push-button
- 1 auxiliary plug contact for connecting pear push-button or a multiple push-button (7-pin)
- 1 auxiliary plug, 6-pin for connection of a diagnostic device with its own electrical isolation according to DIN 60601.1.1
- Speaker and microphone for hands-free function
- Cancel push-button (green)

Inputs/outputs:
- TV control
- TV sound
- 2 relay outputs
- Actuator
- Radio

Functions:
- Nurse call actuation
- Transmission of nurse call conversations, data, radio programs, TV sound
- Control functions such as light control via a separate control output in conjunction with the actuator unit
- TV control function

Accessories

74174A1 Surface-mounted connection board for bed module
74174B1 Flush-mounted connection board for bed module
74174C1 Cavity wall connection board for bed module
74174D1 MSU connection board for bed module
89734PA System cable actuator databus POF

74174A1 **Surface-mounted connection board for bed module**



Surface-mounted connection board for bed module with plug-in terminals for passive units, 24 V DC power supply as well as other bed module functions.

Technical Data

Material	PC + ABS - FR
Color	white, similar to RAL 9016
Dimensions	W: 228 mm H: 81 mm D: 45 mm

Connection board, connection terminals

74174B1 **Flush-mounted connection board for bed module**



As 74174A1, but as flush-mounted connection board.

Technical Data

Material	PC + ABS - FR
Color	white, similar to RAL 9016
Dimensions	W: 250 mm H: 102 mm D: 12.5 mm D: 40 mm (installation depth)

Connection board, connection terminals

74174C1 **Cavity wall connection board for bed module**



As 74174A1, but connection board for cavity wall.

Technical Data

Material	PC + ABS - FR
Color	white, similar to RAL 9016
Dimensions	W: 250 mm H: 102 mm D: 12.5 mm D: 40 mm (installation depth)

Connection board, connection terminals

74174D1 **MSU connection board for bed module**



As 74174A1, but connection board for medical supply unit.

Technical Data

Material	PC + ABS - FR
Color	white, similar to RAL 9016
Dimensions	W: 288 mm H: 81 mm D: 52 mm

Connection board, connection terminals

74133A1 Patient handset with speech



The user-friendly control unit is suitable for actuating calls, selecting radio and TV channels and switching the light on/off as well as for discreet communication with the nursing staff. It is equipped with a clearly structured button panel and orientation/reassurance lamp at the call push-button.

With the 2*2-digit seven-segment display, the selected radio channel, TV function as well as the time (when available) is indicated. The patient handset is equipped with a speaker and a 3.5 mm jack earphone connection for radio and TV playback. Its surface is easy to clean and water-proof (IP 54).

The hook on the wall or at the bedside table serves as a handset retainer. The handset is connected to the bed module via an auto-release plug.

Features

Components:

- Call push-button (red) with LED reassurance lamp and orientation lamp
- 2 light buttons (yellow)
- Function control buttons
- Microphone for discreet communication
- Earpiece
- 3.5 mm jack for headphones connection
- Auto-release system plug for connection to the bedside interface electronics

Technical Data

Mounting	tubular at the bedside table / wall
Type of protection	IP54
Material	PC + ABS - GF20
Color	white, similar to RAL 9016 (housing)
Weight	approx. 260 g
Connecting cable	2.5
Dimensions	L: 206 mm W: 71 mm H: 27 mm

Can be used in combination with the bed module 74188A1.

2 cable fixing clips for mobile call units (attached to trapezoid bar)

Accessories

74131B1 Bracket for patient handset / terminal
74096D Cable fixing clip
89760C Headphone with right-angle plug

74096D Cable fixing clip



Cable fixing clip for patient handsets and patient terminal (attached to trapezoid bar).

10 pcs

74131B1 Bracket for patient handset / terminal



Bracket to deposit the patient handset / terminal on the wall or at the bedside table.

Technical Data

Material	PC + ABS - FR
Color	white, similar to RAL 9016

72631A1 Actuator unit AE230-3 (3 contacts 230 V AC)



Actuator unit for operation control on the 230 V power supply system according to EM60669 Part 1 + 2 (VDE0632). The actuator unit allows the control of a maximum of 3 light sources or other electric devices via various terminal devices (i.e. patient terminal, patient handset, multiple push-button). The actuator unit is equipped with a separate input for an independent button (i.e. lamp button). It is the actuator databus (POF synthetic fiber) connecting and simultaneously controlling the actuator unit linked to the bed module or to the room terminal, for example. Actuators can be cascaded (concatenated) up to a maximum of 7 switch contacts.

Technical Data

Rated voltage	230 V AC
Contact load	230 V AC, 5 A total
Type of protection	IP40
Material	PC + ABS - FR
Color	white, similar to RAL 9016
Version	for sm, fm and cavity wall installation
Dimensions	L: 142 mm W: 78.5 mm H: 30.5 mm

Accessories

89734PA System cable for the actuator bus, 10 m

72631B1 Actuator unit AE230-2 (2 interlocking contacts 230 V AC)



Actuator unit with 2 interlocking contacts for control of operations on the 230 V power supply system, specially designed for controlling motors e.g. blinds. The actuator unit allows the control of a maximum of 1 motor via various terminal devices (e.g. patient terminal, patient handset, multiple push-button). The actuator unit is equipped with two separate inputs for autarkic buttons (i.e. control button). It is the actuator databus (POF synthetic fiber) connecting and simultaneously controlling the actuator unit linked to the bed module or to the room terminal, for example. Actuators can be cascaded (concatenated) up to a maximum of 7 switch contacts.

Technical Data

Rated voltage	230 V AC
Contact load	230 V AC, 3 A
Type of protection	IP40
Material	PC + ABS - FR
Color	white, similar to RAL 9016
Version	for sm, fm and cavity wall installation
Dimensions	L: 142 mm W: 78.5 mm H: 30.5 mm

Accessories

89734PA System cable for the actuator bus, 10 m

72631D1 Actuator unit AE230-2 free (2 floating contacts)



Actuator unit with 2 floating contacts for operations up to 30 V AC/DC. The control voltage necessary for the devices has to be fed in externally. The contacts can be controlled via various terminal devices (e.g. patient terminal, patient handset, multiple push-button). Additionally, two separate inputs for autarkic buttons are available (e.g. control push button). It is the actuator databus (POF synthetic fiber) connecting and simultaneously controlling the actuator unit linked to the bed module or to the room terminal, for example. Actuators can be cascaded (concatenated) up to a maximum of 7 switch contacts.

Technical Data

Rated voltage	230 V AC
Contact load	30 V (AC/DC), 3 A
Type of protection	IP40
Material	PC + ABS - FR
Color	white, similar to RAL 9016
Version	for sm, fm and cavity wall installation
Dimensions	L: 142 mm W: 78.5 mm H: 30.5 mm

Accessories

89734PA System cable for the actuator bus, 10 m

72631C1 Actuator unit AE24-3 (3 contacts 24 V DC)



Actuator unit with 3 contacts for control of operations at 24 V DC. In connection with the actuator unit, a maximum of 3 contacts can be controlled via various terminal devices (e.g. patient terminal, patient handset, multiple push-button). The actuator unit is equipped with an input for autarkic buttons (e.g. control button). It is the actuator databus (POF synthetic fiber) connecting and simultaneously controlling the actuator unit linked to the bed module or to the room terminal, for example. Actuators can be cascaded (concatenated) up to a maximum of 7 switch contacts.

Technical Data

Contact load	24 V DC, 3A
Type of protection	IP40
Material	PC + ABS - FR
Color	white, similar to RAL 9016
Version	for sm, fm and cavity wall installation
Dimensions	L: 142 mm W: 78.5 mm H: 30.5 mm

Accessories

89734PA System cable for the actuator bus, 10 m

89734PA System cable for the actuator bus

System cable for actuator databus. Pre-fabricated connecting line for actuator units for control signal transmission (1 FOC POF with POF plug).

Technical Data

Cable length	10 m
Cable diameter	4.4 mm

incl. simplex plug

74137A1 Patient Handset Systevo Com with Telephone Function



Features

- Graphic LC display to Display patient-relevant data
- Different languages (D / GB / F / I / ESP / NL / user-specific) Shortcut keys for the functions
- TV, radio, telephone, service
- Red call push button with LED reassurance lamp and orientation lamp in accordance with VDE 0834
- Lighting control
- Channel selection key for TV / radio
- Control, to turn it on, off and change channels
- Function keys to adjust the local audio volume
- Telephone keyboard 0-9, #, * and color-coded keys to start and end calls
- Control electronics for HMI (operation), integrated device functions and security-relevant services
- Telephone (VoIP) for operation on an extension
- SIP-compatible contactless RFID card reader to read chip cards for the accounting and authentication functions (user, staff) and usage of services with user-specific rights
- Integrated microphone for intercom function (call system / telephony) in discreet or hands-free mode
- 3.5 mm jack plug to connect headphones
- System plug with an auto-release function

Patient handset Systevo Com with ergonomic shape, adapted to be simple and user-friendly. It has different control functions for the telephony, TV / radio functions, etc. and for accounting services. Designed with a multi-line LC display including an illuminated background and an integrated RFID care reader, the patient handset enables patients to make calls, control device functions in their immediate area (light, blinds) as well as conduct simple voice communication with the nursing staff. The patient handset can be used as a fully-functional telephone. The patient handset has an easy-to-clean surface and is ergonomic to hold thanks to the all-round rubber seal; the housing is coated with an anti-microbial substance to reduce existing bacteria and prevent them from multiplying. The keyboard is fitted with color-coded function keys (TV, radio, telephone, service), additional keys (channel selection, volume, lighting buttons) and a clear telephone keyboard. The integrated speakers also act as a receiver for the TV audio; alternatively the audio signal can be transmitted via the headphone socket (3.5 mm jack plug). The data from the patient card are fed in and user-specific device functions activated via the RFID card reader (patient, alternatively staff). This enables the available services to be clearly assigned and facilitates billing of the telephone and TV functions and additional services. It is prepared for future firmware updates subject to license to enable the use of additional service features. The handset is placed in a purpose-built bracket which can be located either on the wall or on the bedside table.

Technical Data

Operating voltage	24 V DC +/-10 %
Quiescent current @ 24 V DC	approx. 50 mA
Current consumption	max. 100 mA
Ambient temperature	5 °C ... 40 °C
Storage temperature	0 °C ... 60 °C
Air humidity	20...85 % (non-condensing)
Type of protection	IP54
Material	PC+ABS-FR
Color	white, similar to RAL9016
Weight	approx. 190 g
Dimensions	L: 200 mm W: 65 mm H: 33 mm

Compatibility with PBX systems on request

Accessories

74137Z2 Connection cable for the Patient Handset Systevo Com

74137Z3 Hanging Mount for Patient Handset Systevo Com

74137Z2 **Connection cable for the Patient Handset Systevo Com**

Connection cable for a Patient handset Systevo Com with a telephone function. This version includes a auto-release system plug for a Wall Module LAN basic.

Technical Data

Color	white, similar to RAL9016
Cable length	2.5 m

Torque screwdriver needed

Connection cable, instruction manual

74137Z3 **Hanging Mount for Patient Handset Systevo Com**



Bracket for the patient handset to place the device either on the wall or on the bedside table. The device is coated with an anti-microbial substance to kill existing bacteria and prevent them from multiplying.

Technical Data

Material	ABS
Color	white, similar to RAL9016
Dimensions	W: 67 mm H: 53 mm D: 42 mm

Suspension, accessories set (screws, dowels)

74137Z6 **Replacement Housing for Patient Handset Systevo Com**



Replacement housing for a Patient Handset Systevo Com with a telephone function. The device is coated with an anti-microbial substance to reduce existing bacteria and prevent them from multiplying.

Technical Data

Material	PC+ABS-FR
Color	white, similar to RAL9016
Weight	approx. 80 g
Dimensions	W: 65 mm H: 200 mm D: 33 mm

Torque screwdriver needed

Replacement housing, screws set, instruction manual

74187A1 Wall Module Smart for a Patient Handset Systevo Com with a Telephone Function



The requisite call and control functions are provided via the Wall Module Smart. In conjunction with the Wall Module LAN basic. The patient terminal is used: Bedside speech (discrete / hands-free) is possible in connection with the patient handset with telephony service in order to communicate with the nursing staff. Services such as speech (VoETH), telephone functions (VoIP / SIP) and future value-added services are offered at the point of care via the DSL infrastructure. This DSL infrastructure also requires central control units. The Wall Module Smart is connected to a room controller by an individual call input line to identify the specific point of care. Up to two light sources and a TV can be controlled via separate control outputs. If the pre-defined load on the handset's connection cable is exceeded, the patient handset system plug detaches itself from the Wall Module LAN basic, in order to prevent destruction of mechanics.

Features

Equipped with:
- One ETH-LAN interface, to enable connection of the WM LAN basic
- One ETH-LAN socket to connect an additional network device
- Galvanic isolation in accordance with DIN 60950, separation pursuant to EN 60601.1.1 must be implemented using appropriate protective measures

Inputs / outputs:
- TV control
- TV audio
- Two relay outputs

Functions:
- Nurse call initiation
- Transmission of voice nurse calls, data, TV audio (bed data bus / ETH-LAN)
- Lighting control function
- TV control function
- Other configurable system functions

Technical Data

Operating voltage	24 V DC +/-10 %
Current consumption @ 24 V DC	approx. 120 mA
Ambient temperature	0 °C ... 55 °C
Storage temperature	0 °C ... 60 °C
Air humidity	20...85 % (non-condensing)
Type of protection	IP40
Material	ABS
Installation	Installation / mounting, for a suitable wall box ETH-LAN
Color	white, similar to RAL9003
Weight	approx. 113 g
Dimensions	W: 80 mm H: 80 mm D: 27 mm

Compatibility with PBX systems on request

Accessories

74137Z2 Connection cable for Patient Handset Systevo Com
74137Z3 Hanging Mount for Patient Handset Systevo Com

74190A2 Wall Module LAN basic



The Wall Module LAN Basic as a hybrid connection box with LAN data network of category 5e for Fast Ethernet in connection with specific connections of a call system.
Additionally equipped with a release plug system (K-coded) for connecting the Systevo Com patient handheld unit or a mobile call system with self-release plug system. Connection of the WM LAN Basic wall module to a call input of a call unit / call module.
If the predefined pulling force of the connection cable is exceeded, the system connector of the handsets is automatically released from the wall module, in order to avoid mechanical damage.

Features

Equipment:
- 1 system plug - k-coded - for the system connector for connection to the patient handsets or other multifunctional terminal units

Inputs and Outputs:
- LSA-terminals for CAT 5e
- Call triggering, power supply

Technical Data

Operating voltage	24 V DC +/-10 %
Quiescent current @ 24 V DC	approx. 50 mA
Current consumption	max. 100 mA
Ambient temperature	5 °C ... 40 °C
Storage temperature	0 °C ... 60 °C
Air humidity	20...85 % (non-condensing)
Type of protection	IP54
Material	PC+ABS-FR
Installation	Installation / mounting, for a suitable wall box ETH-LAN
Color	white, similar to RAL9016
Weight	approx. 190 g

Accessories

88910N3 Cover plate f. auto release plug A-coded
88914A3 Frame for cover plates (single)

88910N3 Cover plate for auto-release plug system

Cover plate for auto-release plug system - A-coded / L-coded (Part. No. 74189A / 74189L).

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)

74190A1 Wall Module LAN



The Wall Module LAN provides the necessary call units and control functions on the bedside. Connection through a self-releasing connector system of a Patient handset Systevo Com unit or of a multifunctional terminal device. If the predefined pulling force of the connection cable is exceeded, the system connector of the patient terminal is automatically released from the wall module, in order to avoid mechanical damage.
Bedside communication (discreet/free) is possible in connection with the Patient handset Systevo Com unit (IP) for the communication with the care staff. Connection of the Wall Module via the bedside bus to a superior room controller like a room terminal or a room electronic module. The ETH/LAN connection enables the provision of services like voice (VoETH), telephony functions (VoIP/SIP) and future added-value services at the patient's bedside. The separate control outputs allow controlling up to 2 light sources and a TV set (TV control module required).

Technical Data

Operating voltage	24 V DC +/-10 %
Quiescent current @ 24 V DC	approx. 50 mA
Current consumption	max. 100 mA
Ambient temperature	5 °C ... 40 °C
Storage temperature	0 °C ... 60 °C
Air humidity	20...85 % (non-condensing)
Type of protection	IP40
Installation	Installation / mounting, for a suitable wall box ETH-LAN
Weight	approx. 150 g
Dimensions	L: 70 mm W: 70 mm D: 50 mm

Accessories

88914A3 Frame for single cover plate

Features

Equipment:
- 1 self-releasing system plug – K-coded – for connection to the patient handset Systevo Com or other multifunctional terminal units
- 1 call button, 1 cancel button (configurable)
- Galvanic isolation of the control functions according to DIN 60950, the isolation according to EN 60601.1.1 shall be implemented by appropriate protection measures

Inputs and Outputs:
- TV control
- TV sound
- 2 relay outputs

Functions:
- Call trigger, call cancellation, nurse call
- Transmission of nurse call communication, data, TV sound
- (bedside bus / ETH-LAN)
- Control function for light
- Control function for TV set
- Additional configurable system functions

88914A3 Mounting frame for cover plate (single)

Technical Data

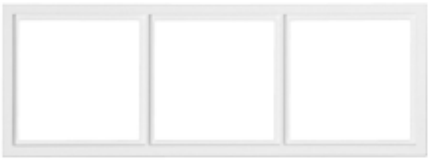
Material	PC + ABS - FR
Color	white, similar to RAL 9016
Dimensions	W: 81 mm H: 81 mm

88914B3 Mounting frame for cover plate (double)

Technical Data

Material	PC + ABS - FR
Color	white, similar to RAL 9016
Dimensions	W: 81 mm H: 152 mm

88914C3 Mounting frame for cover plate (triple)



Technical Data

Material	PC + ABS - FR
Color	white, similar to RAL 9016
Dimensions	W: 81 mm H: 223 mm

89760C Headphones with right-angle plug



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

Technical Data

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)

89760B Headphones with jack plug



Headphones for patient handset and radio unit with volume control.

Technical Data

Power consumption	0.05 W
Weight	approx. 45 g

Accessories

89760BZ Spare foam pads

Features

- 1 adjustable headband
- 2 foam-padded earpieces
- 1.8 m connection cable

89760BZ Spare foam pad (for 89760B/C - twin)

Foam ear cups (2 per pack) to replace the original ear cups for headphones 89760B and 89760C, black.

73073D3 Call module with push-button and 2 monitored sockets



Call module for call initiation with individual bed identification for connection to an electronic module or room terminal with bed databus. Mobile call units such as pear and multiple push-buttons are connected to the 7-pin socket. Additional socket (6-pin) for connection of a medical unit (e.g. infusion pump) with alarm contact. Connection of up to 8 call modules with wire-saving technology to the bed databus is possible. Identification display (up to 8 digits, freely configurable) on call initiation. Monitoring of connected call units (call circuit monitoring).

Technical Data

Mounting	in flush-mounting box DIN 49073
Type of protection	IP20, when installed with respective cover plate
Dimensions	W: 71 mm H: 71 mm D: 25 mm (installation depth)

Replacement article for 73071D, 73073D

Call module, connection terminal

Features

- 1 call push-button
- 1 LED orientation / reassurance lamp (red)
- 1 socket, 7-pin
- 1 socket for diagnostic unit, 6-pin
- Control contact for microphone interfacing unit
- With bed identification

Accessories

88881J3 Cover plate with button (red) and 2 sockets

88881J3 Cover plate with push-button (red) and units with 2 sockets



Cover plate for call module and call unit with call push-button and 2 sockets.

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)

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



As 73073D3, but without 6-pin socket.

Technical Data

Mounting	in flush-mounting box, DIN 49073
Type of protection	IP40, when installed with respective cover plate
Dimensions	W: 71 mm H: 71 mm D: 25 mm (installation depth)

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

Mounting	in flush-mounting box, DIN 49073
Type of protection	IP20, when installed with respective cover plate
Dimensions	W: 71 mm H: 71 mm D: 25 mm (installation depth)

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

88881K3 — Cover plate with push-button (red)



Cover plate for call module with call push-button (red).

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)

71008C3 — Loudspeaker



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

Technical Data

Mounting	in flush-mounting box DIN 49073
Color	white, similar to RAL 9016
Dimensions	W: 71 mm H: 71 mm D: 40 mm (installation depth)

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 analog audio databus. The bedside microphone for the corresponding cover plate is enabled via a special control contact of the call module.

Technical Data

Mounting	in fm installation box, DIN 49073
Type of protection	IP 40, when installed with respective cover plate
Dimensions	W: 71 mm H: 71 mm D: 25 mm (installation depth)

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)

73073G3 Cancel module with ext. input



Cancel module with individual location identification for connection to an electronic module or room terminal with bed data bus. Calls initiated via the external call unit such as the "call button with pull cord and knob" or the "call unit with call button with 1 socket" are acknowledged locally using the call/cancel button. Up to 8 active modules can be connected to the bed data bus using wire-saving technology. Identification (up to 8 digits, freely configurable) is displayed on call initiation.

88881H4 Cover plate for cancel module



Filler panel for cancel module with call/cancel unit - green

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)

73075B — Call unit with call push-button and 2 monitored sockets



Call unit for call initiation to connect to an electronic module or room terminal via a passive input. Mobile call units such as pear and multiple push-buttons are connected to the 7-pin socket. Additional socket (6-pin) for connection of a medical unit (e.g. infusion pump) with alarm contact.

Superordinate room identification displayed after call initiation. Monitoring of connected call units (call circuit monitoring).

Technical Data

Mounting	in flush-mounting box, DIN 49073
Type of protection	IP40, when installed incl. suitable cover plate
Dimensions	W: 71 mm H: 71 mm D: 25 mm (installation depth)

Call push-button, threadless connection terminals

Features

- 1 call push-button
- 1 LED orientation and reassurance lamp (red)
- 1 socket, 7-pin
- 1 socket for diagnostic unit, 6-pin

Accessories

88881J3 Cover plate with call push-button (red) and 2 sockets

73075A — Call unit with call push-button and 1 monitored socket



As 73075B, but without 6-pin socket.

Technical Data

Mounting	in flush-mounting box, DIN 49073
Type of protection	IP40, when installed incl. suitable cover plate
Dimensions	W: 71 mm H: 71 mm

Call push-button, threadless connection terminals

Accessories

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

Features

- 1 call push-button
- 1 LED orientation and reassurance lamp (red)
- 1 socket, 7-pin

73075D — Call unit with 2 diagnostic sockets



As 73075B, but with 2 sockets (6-pin) and without call push-button. Connection of 2 medical units (e.g. infusion pump) with alarm contact possible.

Technical Data

Mounting	in flush-mounting box, DIN 49073
Type of protection	IP40, when installed incl. suitable cover plate
Dimensions	W: 71 mm H: 71 mm D: 25 mm (installation depth)

Accessories

88912D3 Cover plate with 2 diagnostic sockets

Features

- 2 sockets for diagnostic units, 6-pin

88912D3 — Cover plate with call unit with 2 diagnostic sockets



Cover plate for call unit with 2 diagnostic sockets

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)

73022A3 Call push-button



Call push-button for call initiation to connect 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

Mounting	in flush-mounting box, DIN 49073
Type of protection	IP40, when installed incl. suitable cover plate
Dimensions	W: 71 mm H: 71 mm D: 25 mm (installation depth)

Features

- 1 call push-button
- 1 LED orientation and reassurance lamp (red)

Accessories

88881G3 Cover plate with call push-button (red)
88881D3 Cover plate with push-button (blue)for doctor call

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

Mounting	in flush-mounting box, DIN 49073
Type of protection	IP40, when installed incl. suitable cover plate
Material	ABS
Version	for normally closed circuit system
Dimensions	W: 71 mm H: 71 mm D: 25 mm (installation depth)

Features

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

Accessories

88880A3 Cover plate for call switch with pull cord

88880A3 Cover plate for call switch with pull cord



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)

70006D Pneumatic call push-button



Call push-button for pneumatic actuation when connecting 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

Mounting	in flush-mounting box, DIN 49073
Type of protection	IP40, when installed incl. suitable cover plate
Weight	approx. 193 g
Version	for normally closed and open-circuit system
Dimensions	W: 71 mm H: 71 mm D: 40 mm (installation depth)

Features

- 4 m insulating plastic tube and rubber ball
- 1 reassurance lamp (red)

Accessories

88880C3 Cover plate for pneumatic call push-button

88880C3 Cover plate for pneumatic call push-button



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)

73642B3 Call / cancel push-button



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

Technical Data

Mounting	in flush-mounting box, DIN 49073
Type of protection	IP40, when installed incl. suitable cover plate
Dimensions	W: 71 mm H: 71 mm D: 25 mm (installation depth)

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)

88882A3 Cover plate with push-buttons - red and green



Technical Data

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

For call / cancel push-button (duty room unit) Part No. 73642B2

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)

73642C Cancel push-button - PR 1 -



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

Technical Data

Mounting	in flush-mounting box, DIN 49073
Type of protection	IP40, when installed incl. suitable cover plate
Dimensions	W: 71 mm H: 71 mm D: 25 mm (installation depth)

Accessories

88881H3 Cover plate with cancel push-button (green)

Features

- 1 button for cancel function
- 1 LED reminder lamp (green)
- 1 sound generator for call forwarding

88881H3 Cover plate with button -green-



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)

73642D Cancel push-button - PR 2 -



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

Technical Data

Mounting	in flush-mounting box, DIN 49073
Type of protection	IP40, when installed incl. suitable cover plate
Dimensions	W: 71 mm H: 71 mm D: 25 mm (installation depth)

Accessories

88881M3 Cover plate with cancel push-button (yellow)

Features

- 1 button for cancel function
- 1 LED reminder lamp (yellow)
- 1 sound generator for call forwarding

88881M3 — Cover plate with button - yellow



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)

73642E — Cancel push-button -PR 1 / PR 2-



Cancel push-buttons with flush mount supporting ring and expanding/retaining clamps for flush-mounting boxes.

Technical Data

Mounting	in flush-mounting box, DIN 49073
Type of protection	IP40, when installed incl. suitable cover plate
Dimensions	W: 71 mm H: 71 mm D: 25 mm (installation depth)

Accessories

88882B3 Cover plate with 2 cancel push-buttons (green and yellow)

Features

- 2 button for cancel function
- 2 LED reminder lamps - green and yellow -
- 1 sound generator for call forwarding

88882B3 — Cover plate with 2 cancel push-buttons (green and yellow)



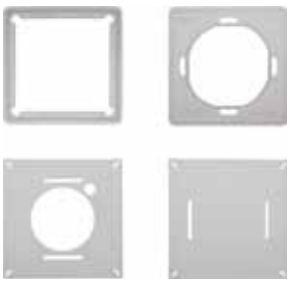
Technical Data

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)

88160A — Sealing kit for standard installations



The sealing kit guarantees IPx4 humidity protection for call and cancel push-buttons as well as for call switches. The sealing kit can be also used in areas requiring splash water protection. Existing installation units can also be upgraded.

One sealing kit displayed here

5 sealing kits for up to 5 call and cancel buttons or 5 call switches.

74189A — Auto-release plug system - A-coded



Auto-release plug system - A-coded for connecting pear and multiple push-buttons with auto-release plug (Version x4), suitable for flush-mounted combination boxes and flush-mounting boxes with 60 mm screw fixing groove.

Technical Data

Mounting	in flush-mounting box, DIN 49073
Type of protection	IP40, when installed incl. suitable cover plate
Dimensions	W: 71 mm H: 71 mm D: 25 mm (installation depth)

Accessories

88910N3 Cover plate for auto-release plug system

74189L **Auto-release plug system - L-coded**



As 74189A, but L-coded. Suitable for pear and multiple push-button with auto-release plug (Version x7).

Technical Data

Mounting	in flush-mounting box, DIN 49073
Type of protection	IP40, when installed incl. suitable cover plate
Dimensions	W: 71 mm H: 71 mm D: 25 mm (installation depth)

Accessories

88910N3 Cover plate for auto-release plug system

74199A **Auto-release plug system**



Auto-release plug system for connecting pear or multiple push-buttons with auto-release plug (Version x3), suitable for flush-mounting box, with 60 mm screw fastening groove.

Technical Data

Mounting	in flush-mounting box, DIN 49073
Type of protection	IP40, when installed incl. suitable cover plate
Dimensions	W: 71 mm H: 71 mm D: 25 mm (installation depth)

Accessories

88880D3 Cover plate for auto-release plug system (74199A)

88880D3 **Cover plate for auto-release plug system (74199A)**



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)

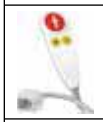
73073Z1 **Claw set for 10 call units**

Upgrade kit with 20 claw set retainers for 10 call units (e.g. 73073xx, 73075x, 70045xx, 70046xx).

Mobile room devices IP 67

Technical Data

Material	ABS
Color	white, similar to RAL 9016
Version	for normally closed circuit systems
Dimensions	L: 140 mm W: 50 mm D: 26 mm

Pear push-button		PART No.	Plug	Control buttons
		74154B4	auto-release -A-	-
		74154A1	DIN	-
		74154C1	DIN	2 Light buttons
		74154C4/ 74154D4	auto-release -A-	2 Light buttons
		74154C7	auto-release -L-	2 Light buttons
		74155C3	auto-release	2 Light buttons 2 Function buttons 1 I/O button

Overview of mobile operating devices

74154B4

Pear push-button IP 67 (NC) 2.5 m



Pear push-button with auto-release plug in ergonomic housing (IP 67) with antimicrobial surface, A-coded auto-release connector plug with 2.5 m connection lead. Easy to operate push-button with integrated orientation lamp. Push-button with closed-circuit design.

Installation en relation avec l'article 74189A

Accessories

74154Z1 Hanging mount for MPB

Features

- 1 bouton d'appel rouge avec symbole
- 1 voyant de localisation et de tranquillisation rouge

74154A1 Pear push-button IP 67 (NC) 2.5 m



Multiple push-button with 7-pole plug in ergonomic housing (IP 67) with antimicrobial surface, A-coded auto-release connector plug with 2.5 m connection lead. Easy to operate push-button with integrated orientation lamp. Push-button with closed-circuit design.

Accessories
74154Z1 Hanging mount for MPB

Features

- 1 bouton d'appel rouge avec symbole
- 1 voyant de localisation et de tranquillisation rouge

74154C1 Multiple push-button 2+1 IP 67 (NC) 2.5 m



Multiple push-button in ergonomic housing (IP 67) with antimicrobial surface, 7-pin plug with 2.5 m connection lead. Easy to operate push-button with integrated orientation lamp as well as 2 light buttons. Push-button with closed-circuit design.

Accessories
74154Z1 Hanging mount for MPB

Features

- 1 bouton d'appel rouge avec symbole
- 1 voyant de localisation et de tranquillisation rouge
- 2 boutons d'éclairage jaune

74154C4 Multiple push-button 2+1 IP 67 (NC) 2.5 m



Same as 74154C1, but with A-coded auto-released plug.

Installation en relation avec l'article 74189A

Accessories
74154Z1 Hanging mount for MPB

Features

- 1 bouton d'appel rouge avec symbole
- 1 voyant de localisation et de tranquillisation rouge
- 2 boutons d'éclairage jaune

74154D4 Multiple push-button 2+1 IP 67 (NC) 5 m



Same as 74154C1, but with A-coded auto-released plug.

Accessories
74154Z1 Hanging mount for MPB

74154C7 Multiple push-button 2+1 IP 67 (NC) 2.5 m



As 7454C1, but connector plug is L-coded. Compatible with bed module BM99 and the Auto-Release Plug System – L-coded.

Accessories

74154Z1 Hanging mount for MPB

74155C3 Multiple push-button 5+1 IP 67 (NC) 2.5 m



Multiple push-button in ergonomic housing (IP 67) with antimicrobial surface, auto-release connector plug with 2.5 m connection lead. Easy to operate push-button with integrated orientation lamp, 2 light buttons as well as 3 additional function keys. Push-button with closed-circuit design.

Installation en relation avec l'article 74199A

Accessories

74154Z1 Hanging mount for MPB

Features

- 1 bouton d'appel rouge avec symbole
- 1 voyant de localisation et de tranquillisation rouge
- 2 boutons d'éclairage jaune

74154Z1 Hanging mount for pear- and multiple push button IP67



Hanging mount for multiple buttons IP67 for depositing the device on the wall or on the bedside table. Performed with antimicrobial material to reduce bacteria present and to prevent their reproduction.

Technical Data

Material	ABS
Color	white, similar to RAL 9016
Dimensions	W: 57 mm H: 50 mm D: 31 mm



Mobile room devices

Technical Data

Material	ABS
Color	white, similar to RAL 9016
Version	for normally closed circuit systems
Dimensions	L: 110 mm W: 40 mm D: 18 mm

		3 m	5 m	Plug	Light button
Pear push-button 		74141B1	74141C1	DIN	-
		74141B3	74141C3	auto-release	-
		74141B4	74141C4	auto-release -A-	-
		74141B7	-	auto-release -L-	-
Multiple push-button 		74151B1	-	DIN	1
		74153B1	74153C1	DIN	2
		74153B3	74153C3	auto-release	2
		74153B4	74153C4	auto-release -A-	2
		74153B7	74153C7	auto-release -L-	2

Overview of mobile operating devices

74141B1 Pear push-button (NCC) 7-pin plug, 3 m

Features

- 1 call push-button (red) with nursing staff symbol
- 1 LED orientation lamp / reassurance lamp (red)

Pear push-button with 7-pole plug, connection cable and slot for line insertion to enable variable looping and pull relief.

74141C1 Pear push-button (NCC) 7-pin plug, 5 m

As 74141B1, but with 5 m connection cable.

74141B3 Pear push-button (NCC) auto-release plug, 3 m

Features

- 1 call push-button (red) with nursing staff symbol
- 1 LED orientation lamp / reassurance lamp (red)

Pear push-button with auto-release plug, connection cable and slot for line insertion to enable variable looping and pull relief.

Installation en relation avec l'article 74199A

74141C3 Pear push-button (NCC) auto-release plug, 5 m

As 74141B3, but with 5 m connection cable.

74141B4 Pear push-button (NCC) auto-release plug - A -, 3 m

Features

- 1 call push-button (red) with nursing staff symbol, configured for call circuit monitoring
- 1 LED orientation lamp / reassurance lamp (red)

Pear push-button with A-coded auto-release plug, connection cable and slot for line insertion to enable variable looping and pull relief.

Use in combination with Part No. 74189A.

74141C4 — Pear push-button (NCC) auto-release plug - A - , 5 m

As 74141B4, but with 5 m connection cable.

74141B7 — Pear push-button (NCC) auto-release plug - L -, 3 m

Features

- 1 call push-button (red) with nursing staff symbol with LED reassurance lamp and orientation lamp

Pear push-button with auto-release plug to connect to a bed module or an auto-release plug system L-coded connected to a call module. Then the pear push-button contact is monitored. Connection cable and slot for line insertion for variable loop forming and pull relief.

74151B1 — Multiple push-button (NCC) 7-pin plug, 1 light button, 3 m

Features

- 1 call push-button (red) with nursing staff symbol
- 1 LED orientation lamp / reassurance lamp (red)
- 1 light button (yellow)

Multiple push-button with 7-pole plug, connection cable and slot for cable insertion to enable variable looping and pull relief.

74153B1 — Multiple push-button (NCC) 7-pin plug, 2 light button, 3 m

Features

- 1 call push-button (red) with nursing staff symbol
- 1 LED orientation lamp / reassurance lamp (red)
- 2 light button (yellow) (separate circuit)

Multiple push-button with 7-pole plug, connection cable and slot for cable insertion to enable variable looping and pull relief.

74153C1 — Multiple push-button (NCC) 7-pin plug, 2 light buttons, 5 m

As 74153B1, but with 5 m connection cable.

74153B3 — Multiple push-button (NCC) auto-release plug, 3 m

Features

- 1 call push-button (red) with nursing staff symbol, configured for call circuit monitoring
- 1 LED orientation lamp / reassurance lamp (red)
- 2 light buttons (yellow) (separate circuit)

Multiple push-button with auto-release plug, connection cable and slot for cable insertion to enable variable looping and pull relief.

Installation en relation avec l'article 74199A

74153C3 — Multiple push-button (NCC) auto-release plug, 5 m

As 74153B3, but with 5 m connection cable.

74153B4 — Multiple push-button (NCC) auto-release plug - A -, 3 m

Features

- 1 call push-button (red) with nursing staff symbol
- 1 LED orientation lamp / reassurance lamp (red)
- 2 light buttons (yellow) (separate circuit)

Multiple push-button with A-coded auto-release plug, connection cable and slot for cable insertion to enable variable looping and pull relief.

Use in combination with Part No. 74189A.

74153C4 — Multiple push-button (NCC) auto-release plug - A -, 5 m

As 74153B4, but with 5 m connection cable.

Use in combination with Part No. 74189A.

74153B7 — Multiple push-button (NCC) auto-release plug -L-, 3 m

Features

- 1 call push-button (red) with nursing staff symbol with LED reassurance lamp and orientation lamp
- 2 light buttons (yellow) (separate circuit)

Multiple push-button with auto-release plug to connect to a bed module or an auto-release plug system L-coded connected to a call module, with the multiple push-button contact being monitored. Connection cable and slot for line insertion for variable loop forming and pull relief.

Use in combination with Part No. 74189L / 74188A1.

74153C7 **Multiple push-button (NCC) auto-release plug -L-, 5 m**



As 74153B7, but with 5 m connection cable.

Special call units

73310F1 — Wireless call set with handheld transmitter IP65, 868MHz



High-quality 868 MHz wireless call set with handheld transmitter with red call push-button in IP 65 housing. Handheld transmitter watch with stretch bracelet and velcro fastener, which can also be used as a neck strap transmitter with optional neck strap. The power-saving electronics guarantee long-lasting operational reliability supported by intelligent battery monitoring, which includes the transfer of status information to the assigned wireless receiver. When a call is triggered, an optical confirmation is displayed for a limited time to the person seeking assistance.

The wireless receiver is designed with a floating switch contact output adjustable to call systems with call circuit monitoring or open-circuit current technology. Equipped with clear LED status displays in operational mode as well as with acknowledgement message for a received call. Wireless receiver supplied via the 7-pin auxiliary contact of the call system. Simple allocation of up to 8 units to the wireless receiver, alternative master mode can be configured for compatible wireless units.

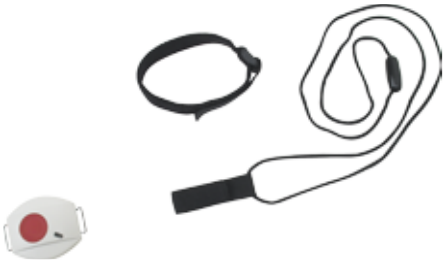
Technical Data

Power supply	3 V battery (handheld transmitter) 24 V DC (radio receiver)
Dimensions	W: 32 mm H: 53 mm D: 17 mm (handheld transmitter) W: 40 mm H: 130 mm D: 24 mm (radio receiver)

The set complies with EU standards.

Wireless receiver, wireless handheld transmitter, stretch bracelet and neck strap.

73310G1 — Wireless handheld transmitter with bracelet and neck strap IP 65, 898 MHz



Optional IP 65 wireless handheld transmitter, identical design as the wireless receiver set 73310F1.

73310J1 — Handheld transmitter (single), 868MHz



The wireless receiver is designed with a floating switch contact output adjustable to call systems with call circuit monitoring or open-circuit current technology. Equipped with clear LED status displays in operational mode as well as with acknowledgement message for a received call. Wireless receiver supplied via the 7-pin auxiliary contact of the call system. Simple allocation of up to 8 units to the wireless receiver, alternative master mode can be configured for compatible wireless units.

Technical Data

Power supply	24 V DC (radio receiver)
Dimensions	W: 40 mm H: 130 mm D: 24 mm (radio receiver)

73300A Noise level sensor



Noise level sensor with adjustable noise threshold and call actuation time, microphone, call push-button (red) and button to block calls for noise threshold testing, 2 LED indicator lamps, 2 m connecting cable with 7-pole DIN plug.

Technical Data

Color	black, similar to RAL 9011
Dimensions	W: 155 mm H: 95 mm D: 38 mm

Only 1 unit by call circuit!

Features

- 1 microphone
- 1 call push-button
- 1 button to block calls for noise threshold testing
- 2 LED indicator lamps
- 2 m connection cable with 7-pole DIN plug

70007A Pneumatic pear push-button (NCC) DIN plug, 1.9 m



Pneumatic pear push-button with 7-pole connection plug, 1.9 m insulating plastic tube with rubber ball and retaining clip.

Technical Data

Operating voltage	24 V DC
Color	white
Version	for normally closed circuit systems

Features

- 1.9 m insulation material tube, with rubber ball and retaining clip

70007B Pneumatic breath call unit (NCC) DIN-plug



Pneumatic breath call unit with 7-pole connection plug. It is suitable for immobile patients. The call is actuated pneumatically by forcefully breathing into the unit. The unit is connected to the nurse call system via a 7-pole auxiliary plug contact.

Technical Data

Operating voltage	24 V DC
Version	for normally closed circuit systems

Breath call unit, replacement tubes

Accessories

70005BZ Spare tubes for pneumatic call unit

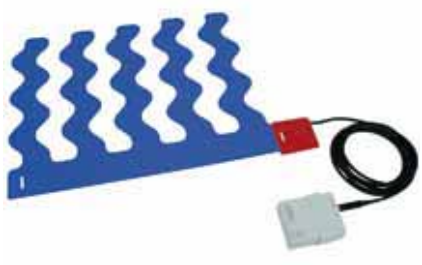
70005BZ Spare tubes for pneumatic call unit



Accessories for breath call unit 70005B / 70007B

12 spare tubes with filter

73312A1 Bed sensor



Bed sensor for fall prevention as well as for presence monitoring of patients and care recipients for use in the bed. Easy handling with optimum adaptation to the requirements of everyday nursing activities due to single-button operation. Designed with patented sensor foil for installation under the mattress or under the mattress protection insert. Detection of presence or absence of a person by monitoring heartbeat, respiration and movement in the bed. Corresponding message by the evaluation unit, if person is not detected, e.g. when leaving the bed. Floating output for alarm forwarding for use of the bed sensor in a call system (quiescent current). 24 V DC power supply via the call system. Different configuration options for sensor sensitivity, alarm delay time, volume of the acoustic signal, relay contact as well as on/off switch.

Features

- Patented thin-slice technology
- High operational reliability & flexibility
- Positioning under the mattress possible
- High potential for improving everyday nursing activities
- Plug & play functionality
- Adjustable delay times

Equipped with:
-Sensor foil with supply line and jack plug
-Evaluation unit with on/off/reset button as well as status LED and connections for sensor and call system
-Buzzer for call notification (can be deactivated)
-Connection cable for connection to call system

Technical Data

Operating voltage	24 V DC ± 10% 24 V DC
Quiescent current	approx. 20 mA
Alarm current	max. 50 mA
Mounting	surface (evaluation unit) under the mattress (bed sensor)
Type of protection	IP20
Housing	aluminum, powder-coated
Material	polyester (PET) (bed sensor)
Color	white (evaluation unit) blue (bed sensor)
Weight	approx. 160 g
Connecting cable	approx. 2 m (bed sensor) / approx. 2 m (nurce call system)
Dimensions	L: 68 mm W: 89 mm H: 29 mm (evaluation unit) L: 580 mm W: 400 mm (bed sensor)

Please note: The sensor foils are subject to aging resulting in a maximum usage period of 4-5 years and an overall life-time of 6 years from the date of production!

Incl. connection cable for quiescent current operation.

Accessories

73312B1Connecting cable for open circuit current



Application example for the sensor mat (similar to picture)

73312B1 Connecting cable open circuit current for bed sensor

Notes

74656A1 Information display (single-sided) for wall mounting



Information display for wall mounting with red LED dot matrix for the self-luminous alphanumeric plain text display. Speakers for announcements (only Clino System 99) and a tone generator for acoustic call forwarding are integrated.

- System message display with room and bed identification (up to 8 characters, alphanumeric) and symbols for call type (e.g. public washroom, doctor, fault).
- Priority-controlled display with automatic scrolling function (including arrow display) with several pending messages of one priority. Optimal time display in digital format (i.e. 13:40).
- Function monitoring via superordinate control unit (e.g. zone controller).

Features

Functional range:

- Display with alphanumeric room and bed identification
- Call type display
- Time display (configurable, i.e. if no messages are pending)
- Acoustic call forwarding (configurable)
- Announcements via speaker configurable (only in connection with Clino System 99)

Order of display:

- Messages are displayed by priority (in the sequence: alarm call - emergency call - call)
- If several messages of the same priority are pending, they are alternately scrolled

Technical Data

Display	LED dot matrix (8 characters + call type symbol)
Type of protection	IP40
Material	zinc-coated sheet steel
Color	white, similar to RAL 9010
Version	for wall mounting
Dimensions	L: 751 mm W: 55 mm H: 135 mm

74656B1 Information display (single-sided) for ceiling mounting



As 74656A1, but designed for ceiling mounting.

Technical Data

Version	single-sided for ceiling mounting
Dimensions	L: 751 mm W: 55 mm H: 135 mm

Accessories

89603C1 Ceiling mounting set

74657A1 Information display (double-sided) for ceiling mounting



As 74656A1, but double-sided and designed for ceiling mounting. Possibility of system message display from different nurse call zones (front/back).

Technical Data

Version	double-sided for ceiling mounting
Dimensions	L: 751 mm W: 86 mm H: 135 mm (+ 42 mm center bar)

Accessories

89603C1 Ceiling mounting set

74656C1 Information display 3/5 - single-sided for wall mounting



As 74656A1, but also display of presence information.

74657C1 Information display 3/5 - double-sided for ceiling mounting

As 74656C1, but double-sided and designed for ceiling mounting.

Accessories

89603C1 Celling mounting set

89603C1 **Ceiling mounting set**

Ceiling mounting set for mounting the appropriate information display, single- or double-sided, to ceilings.

Technical Data

Material	thermoplastic
Color	white, similar to RAL 9016
Dimensions	max. L: 600 mm (variable)

2 ceiling mounting pipes, fastening material

72574M1 **Direction lamp with 2 lamp cells**



Direction lamp with 2 lamp cells (neutral design, labeling set included) for directional indication of system messages from different functional areas of the superordinate control unit (here: zone controller). Priority-controlled display with different flash signals: alarm call - emergency call - call.

Functional monitoring via superordinate control unit.
1) Call: Continuous signal
2) Emergency call: 1 second on, 1 second off
3) Alarm call: 1/2 second on, 1/2 second off

Features

- Signal lamp using power-saving long-life LED technology

Technical Data

Mounting	sm mounting
Type of protection	IP20
Material	PC
Color	lamp cover: white translucent
Dimensions	W: 158 mm H: 110 mm D: 87 mm

Replacement for 72574C, 72574C2

The 35 mm labeling set (72515Z1) is included in delivery!

Accessories
72574Z2 Connection board for direction lamp, white

72574Z2 **Connection board for direction lamp - white**



Connection board for direction lamp including memory module.

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 terminal, memory module

72515Z1 **Labeling set for zone indicator lamp, 35 mm (accessories)**

Adhesive labeling set with numbers and letters up to a max. height of 35 mm. Includes digits 0-9 as well as the letters “EG”, “OG”, “DG”. Direction arrows and symbols for "Telephone" and "Fire".

Contains 2 sets each



72515Z2	**Labelling set for zone indicator lamp, 50 mm (accessories)**
	Same as 72515Z1, but up to a max. letter height of 50 mm.

89734AH **Halogen-free system cable, 500 m cable drum**



Halogen-free system cable (500 m cable drum) for power supply, time multiplex and speech transmission, 6-core.

Technical Data

Cable	Li2Y 2x1,5 mm + I2Yv 2x2x0,6 (ST) HM2
Fire load	1200 kJ/m

500 m cable drum

89734AJ **Halogen-free system cable, 100 m bundle**



Halogen-free system cable (100 m bundle) for power supply, time multiplex and speech transmission, 6-core.

Technical Data

Cable	Li2Y 2x1,5mm + I2Yv 2x2x0,6 (ST) HM2
Fire load	1200 kJ/m

100 m bundle

89734P1 **HCS Fiber optic cable, 150 m**



HCS fiber optic cable for the connection of two ward databus devices (room terminals, electronic modules or zone controllers in System 99), which are installed spatially apart from each other. The HCS fiber transmits all speech and data signals on the ward databus.

Technical Data

Bending radius	min. 0 mm
Data rate	10 Mbit/s
Dimensions	W: 4 mm H: 7 mm

Das Kabel kann nicht gekürzt werden. Die Anschlüsse sind aufgeschrumpft. Bei der Verwendung darauf achten, dass die Verbindungsvorrichtungen nicht beschädigt werden.

89734R2 **System cable for the ward databus, 400 m cable drum**



System cable for the ward databus as 4-wire, halogen-free system cable for 24 V DC power supply (2 copper-wire cables) as well as data and voice transmission (2 POF FOC).

Technical Data

Bending radius	min. 35 mm
Fire load	1394 kJ/m
Data rate	10 Mbit/s at a lenght of max. 50 m
Cable diameter	8.5 mm
Rated cross-section	2.5 mm² / strand copper

Accessories

82900AA FOC plug for POF system cable (black)
82900AB FOC plug for POF system cable (blue)

89734R1 **System cable for the ward databus, 100 m ring**



As 89734R2, but as 100 m ring.

Technical Data

Color	green
Bending radius	min. 35 mm
Fire load	1394 kJ/m
Cable diameter	8.5 mm
Rated cross-section	2.5 mm² / strand copper

89734L2 System cable for the corridor databus, 400 m cable drum



Corridor databus system cable as 3-wire, halogen-free system cable for 24 V DC power supply (2 copper-wire cables) as well as data and voice transmission (1 POF FOC).

Technical Data

Bending radius	min. 35 mm
Fire load	720 kJ/m
Data rate	5 Mbit/s for a max. length of 20 m
Cable diameter	6 mm
Rated cross-section	0.5 mm² / strand

Accessories

82900AA FOC plug for POF system cable (black)
82900AB FOC plug for POF system cable (blue)

89734L1 System cable for the corridor databus, 100 m ring



As 89734L2, but as 100 m ring.

Technical Data

Color	green
Bending radius	min. 35 mm
Fire load	720 kJ/m
Cable diameter	6 mm
Rated cross-section	0.5 mm² / strand

89734J2 System cable for the actuator bus, 400 m cable drum



System cable for the actuator databus connection line for actuator units for control signal transmission (1 FOC POF with protective coating). The maximum cable length to an actuator is 10 m.

Technical Data

Bending radius	min. 35 mm
Fire load	320 kJ/m
Data rate	5 Mbit/s
Cable diameter	4.4 mm

Accessories

82900AA FOC plug for POF system cable (black)
82900AB FOC plug for POF system cable (blue)

89734J1 System cable for the actuator bus, 100 m ring



As 89734J2, but as 100 m ring.

Technical Data

Color	green
Bending radius	min. 35 mm
Fire load	320 kJ/m
Cable diameter	4.4 mm

89734PA System cable for the actuator bus

System cable for actuator databus. Pre-fabricated connecting line for actuator units for control signal transmission (1 FOC POF with POF plug).

Technical Data

Cable length	10 m
Cable diameter	4.4 mm

incl. simplex plug

7608944 **Serial RS232 connection cable**



Null modem cable for connecting a customer PC to the communication system call and presence log.

Technical Data

Cable	5 m (with Sub D socket, 9-pin)

82900AA **FO cable plug (black)**



FO cable plug -black- to preassemble system cable and to connect the ward databus and corridor databus to the corresponding module inputs and outputs.

Ne convient pas pour la réalisation de connectiques sur le câble 89734P1 (fibre hybride)

100 pcs

Accessories

82950B1Wire polishing tool for FO cable

82900AB **FO cable plug (blue)**



As 82900AA, but blue.

100 pcs

82950A1 **Wire stripping tool for FO cable (2)**



Wire stripping tool for FO cable for simple handling.

82950A2 **Wire stripping tool for FO cable (1)**



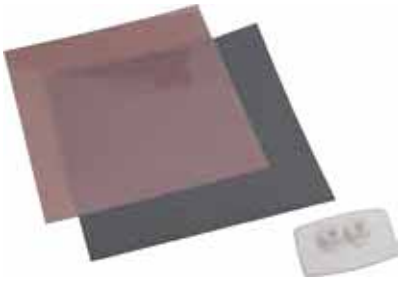
Wire stripping tool for FO cable for simple handling.

82950A3 **Wire cutting tool for FO cable**



Wire cutting tool FO cable for simple handling.

82950B1 — Wire polishing tool for FO cable



Used to optimize surface quality of FO cables, increase the connection quality and reduce damping during cable assembly. Each tool consists of a polishing adapter and 2 sheets of sandpaper.

Pour le mode opératoire, se reporter à la documentation

88894AL — LED lamp (transparent)



Replacement LED lamp for room electronic modules (Part No. 72572D2) and room signal lamps (Part No. 72569C/D).

Technical Data

Mounting	Baïonnette
Color	transparent

5 pcs

88894BL — LED lamp (red)



As 88894AL, but red.

Technical Data

Mounting	Baïonnette
Color	red

5 pcs

88894CL — LED lamp (green)



As 88894AL, but green.

Technical Data

Mounting	Baïonnette
Color	green

5 pcs

88894DL — LED lamp (yellow)



As 88894AL, but yellow.

Technical Data

Mounting	Baïonnette
Color	yellow

5 pcs

71186GV **Telephone interface unit for 35 mm mounting rail**



Telephone interface unit for top-hat rail mounting with floating change-over contact as well as separate configuration option for call time delay and power-on time.

Technical Data

Rated voltage	230 V AC
Type of protection	IP40
Housing	Plastic
Color	gray
Dimensions	W: 35 mm H: 68 mm D: 60 mm

88914A3 **Mounting frame for cover plate (single)**

Technical Data

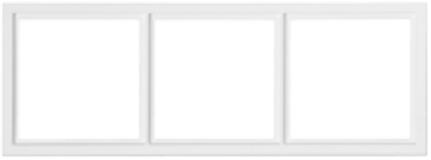
Material	PC + ABS - FR
Color	white, similar to RAL 9016
Dimensions	W: 81 mm H: 81 mm

88914B3 **Mounting frame for cover plate (double)**

Technical Data

Material	PC + ABS - FR
Color	white, similar to RAL 9016
Dimensions	W: 81 mm H: 152 mm

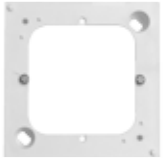
88914C3 **Mounting frame for cover plate (triple)**



Technical Data

Material	PC + ABS - FR
Color	white, similar to RAL 9016
Dimensions	W: 81 mm H: 223 mm

88915A3 **Surface mount base (single)**



Technical Data

Material	PC + ABS - FR
Color	white, similar to RAL 9016
Dimensions	W: 81 mm H: 81 mm D: 20.2 mm

88915C3 **Surface mount base (double)**



Technical Data

Material	zinc-coated sheet steel
Color	white, similar to RAL 9016
Dimensions	W: 85 mm H: 156 mm D: 20.1 mm

88915D3 Surface mount base (triple)



Technical Data

Material	zinc-coated sheet steel
Color	white, similar to RAL 9016
Dimensions	W: 85 mm H: 227 mm D: 30 mm

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)

18971A Flush-mounted backbox



DIN 49073 backbox for all installation units with expanding/retraining clamps.

Technical Data

Material	insulator
Dimensions	Ø: 58 mm D: 40 mm

18971B Cavity wall backbox

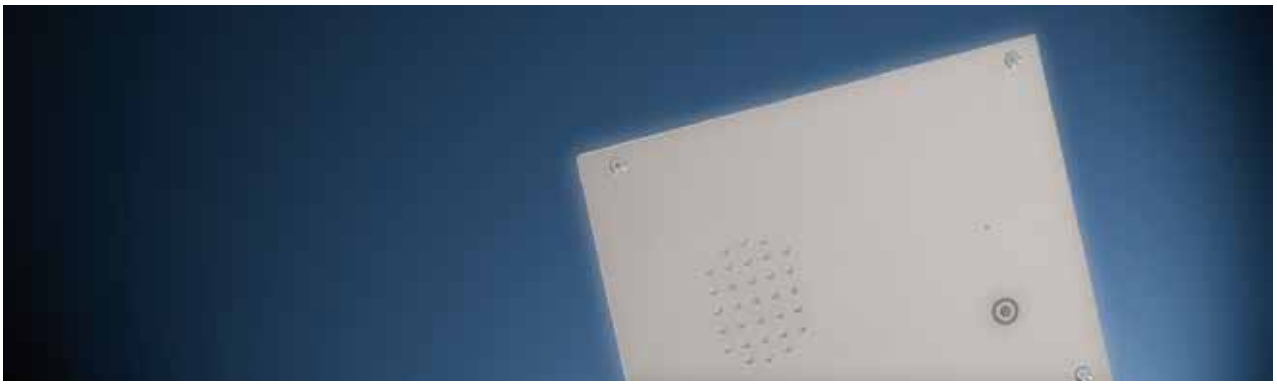


Backbox for cavity wall installation in wooden, plaster, and other cavity walls.

Technical Data

Material	thermoplastic, flame-retardant
Dimensions	Ø: 71 mm D: 65 mm

Notes

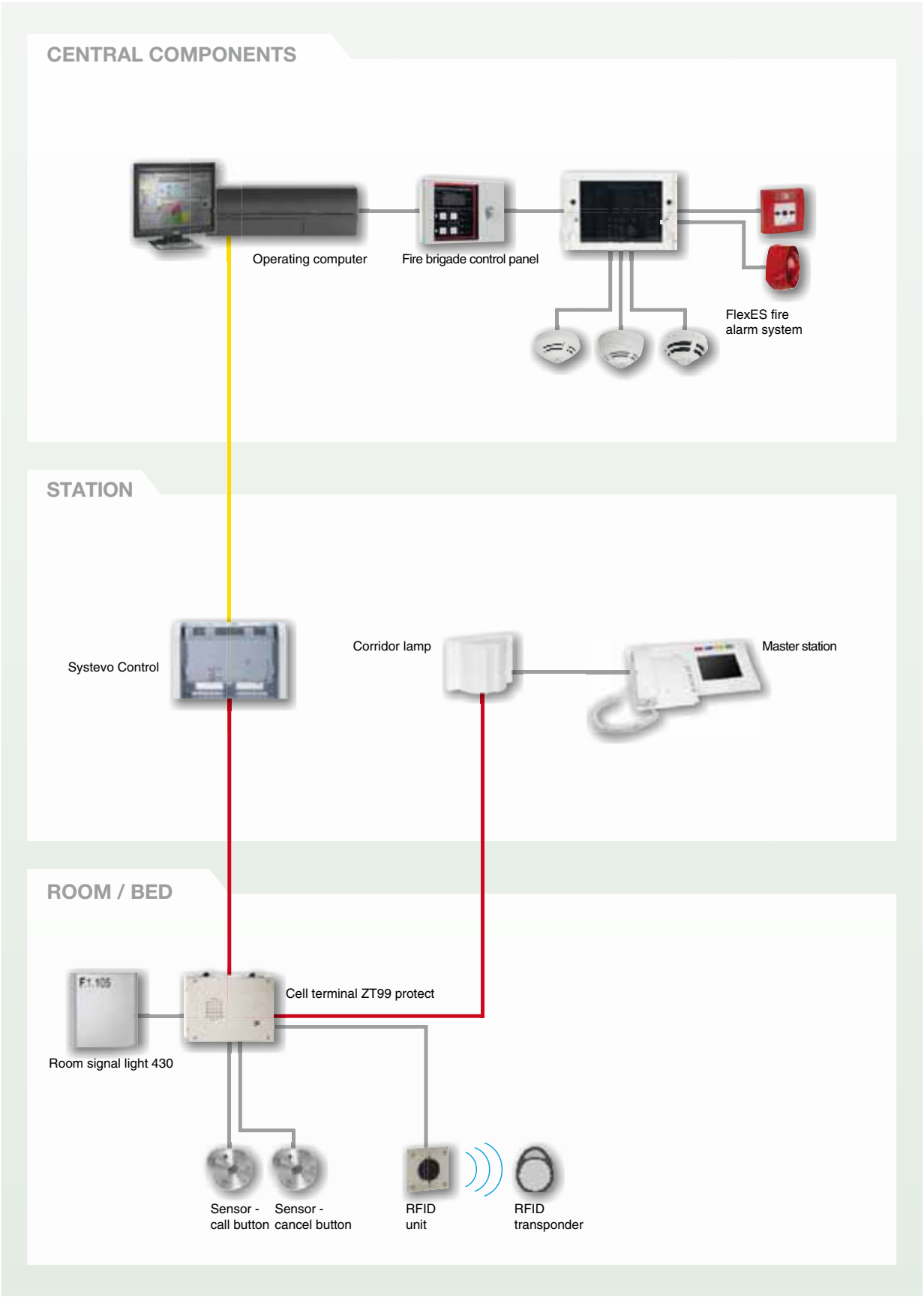


Clino System 99protect System description 106-107
Components 108-111

The communication solution Clino System 99protect is adapted for use in facilities where security plays a major role. The communication system was upgraded with additional functions to meet the special security requirements of locked facilities. Among other things, this includes emergency calls if attendance time is exceeded, case by case switching from free duplex operation to one-sided half-duplex operation, automatic call reset (logged call suppression) and the secured and logged cancellation of eavesdropping protection. Both the product's functions and its robust, vandalism-proof design meets the requirements of security-sensitive areas.

Application areas:
- Correctional facilities
- Forensic clinics
- Detention rooms
- Psychiatric institutions
- Freely accessible areas with high security requirements (e.g. use as a door communication terminal)

Special features:
- Personnel emergency call (automatic alarm triggering if attendance time exceeded)
- Call revocation in the event of abuse (calls are also logged after activation)
- Collective announcements in pre-selectable areas
- Half-duplex operation with controllable speech direction
- Cancellation of eavesdropping protection by using a password
- GSM detector for cell phone detection can be connected


CENTRAL COMPONENTS
Operating computer
Fire brigade control panel
FlexES fire alarm system
STATION
Systevo Control
Corridor lamp
Master station
ROOM / BED
F1.105
Room signal light 430
Cell terminal ZT99 protect
Sensor - call button
Sensor - cancel button
RFID unit
RFID transponder
Ethernet / LAN
Room bus
Direct connection
Bedside bus

On request

Room terminal 99 Protect



Vandalism-proof room terminal in IP 54 design with additional sabotage monitoring and integrated sensor call push-button for the secure call triggering. The V2A terminal housing serves as a controller for detention rooms with speech function and offers connection options for passive units and active databus components. If presence is set, an acoustic signal indicates the call message with top priority. Speech (only incoming) in the hands-free mode via integrated speaker and microphone in high audio quality due to digital transmission technology. Optional reception of announcements.

With integrated circuit technology for passive call and cancelation units (e.g. sensor push-button) including call circuit monitoring, the input and output parameters are adaptable to local requirements. Standard configuration and special configuration settings for detention rooms (sabotage alarm, personnel emergency call after expiry of attendance time, etc.) can be made according to customer requirements.

Local storage of the configuration data including the 8-character alphanumeric text for the room, audio parameters and special functions. Equipped with a service socket for the configuration module and selection switches for quiescent/open-circuit current. Start-up support due to extended remote access functions. Mounting in combination with shipped flush-mounting installation box.

Integration of room terminal into the corridor databus. Upgradeable to future system firmware due to trendsetting Flash technology.

- Corridor databus for digital data and audio transmission
- Bed databus
- Analog audio line for bedside communication
- Configuration socket for selectable decentralized configuration in conjunction with the configuration module
- Service socket for connecting analysis tools
- Identification of up to 3 call locations with passive call units (passive call units)
- Quiescent/open-circuit current option
- Compatibility mode for former/latest DIN VDE 0834
- Remote access functions

Features

- Calls: Normal call, emergency call to public officials
- Other calls: Sabotage alarm, cell phone alarm
- WC calls: normal call, enhanced call, WC emergency call
- Cancellation and presence: Combined cancellation/presence, PR 1 (green) separate cancellation for bathroom / WC
- Acoustic call forwarding
- Control of optical signals: WC call lamp - white, room call lamp - red, PR lamps – green and yellow
- Security function: Short-circuit resilient, call circuit monitoring

Technical Data

Type of protection	IP x4 (built in 76919J1)
Material	stainless steel V2A
Color	silver
Weight	approx. 1700 g
Dimensions	W: 185 mm H: 249 mm D: 45 mm

Installation box not included in delivery.

Accessories

On request	Flush-mounting installation box for room terminal 99 Protect
On request	Dummy cover plate for flush-mounted room terminal 99 Protect housing

76919J1

Flush mounted installation box for room terminal 99 Protect



Vandalism-proof installation box for the room terminal 99 Protect. Design including rubber seal for IP 54 protection. Installation flush plaster and with special screws for protection against sabotage. Equipped with cable inlets for the required wiring.

Designed with connectable screw terminals for power supply for a line cross-section of up to 2 x 2.5 mm ² Cu wire with end sleeves. Separately shielded supply to components (e.g. sensor button) in the detention room using connectable miniature terminals.

Technical Data

Type of protection	IP x4 (built in 76919J1)
Material	stainless steel V2A
Color	silver
Weight	approx. 2300 g
Dimensions	W: 190 mm H: 255 mm D: 65 mm W: 215 mm H: 255 mm D: 65 mm (incl. steel brackets)

76919JP **Plastering cover for fm-connection box for room terminal 99 Protect**

Plastering cover for vandalism-proof room terminal 99 Protect.

5 pcs.

71185D2 **Sensor push-button as cancel push-button**



Sensor push-button as a cancel push-button with LED orientation lamp and reassurance lamp (green) and 4 mm brass front panel, chromium-plated, ø 70 mm and 3 hex socket head screws for fastening front panel.

1 bloc par circuit d'appel maximum

Accessories
89450B Switch box for sensor push-button

71185E2 **Sensor push-button as call push-button**



Sensor push-button as a call push-button with LED orientation lamp and reassurance lamp (red) and 4 mm brass front panel, chromium-plated, ø 70 mm and 3 hex socket head screws for fastening front panel.

1 bloc par circuit d'appel maximum

Accessories
89450B Switch box for sensor push-button

89450B **Backbox for sensor push-button**



For flush-mounted touch sensitive call push-buttons, with back and side entry.

Technical Data

Material	steel, galvanized and chromatized steel

Features

- 1 sensor push-button metal spacer
- 1 plaster cover
- 1 gasket
- 1 anchor plate

74913BJ Vandalism-protected RFID module



Features

- Integrated RFID reader
- Scanning range only a few millimeters
- LED confirmation lamps

Vandalism-proof RFID module for presence indication by operating staff. Wireless transmission of identifying information of the RFID transponder in the RF field to the RFID module (scanning range only a few millimeters for security reasons) for local evaluation.

Release from two locking positions with optical confirmation of the identification of the RFID transponder via LED display of the respective active position. Support of functions for call cancellation, preparation of the police alarm (position 1), preparation of personnel alarm the event of expired attendance time (position 2) with respective configuration of the system control panels and the room control units.

Connection of the vandalism-proof RFID module to a room terminal or room electronic module.

Technical Data

Mounting	in flush mounting box DIN 49073
Type of protection	IP 42
Material	stainless steel V2A
Color	silver
Weight	approx. 350 g
Dimensions	W: 68 mm H: 68 mm D: 42 mm

Accessories

74913BA RFID-transponder chip "Standard"
74913BB RFID-transponder chip "Reset"

74913BA RFID-transponder chip "Standard"



RFID transponder chip for personified presence indication. Storage of the user profile in access-protected storage structure.

Technical Data

Material	PC
Color	black/gray
Weight	approx. 10 g
Dimensions	W: 30 mm H: 40 mm D: 5 mm

74913BB RFID-transponder chip "Reset"



RFID transponder chip for dedicated deletion of presence in the vandalism-proof RFID module. Storage of user profile in access-protected storage structure.

Technical Data

Material	PC
Color	red/gray
Weight	approx. 10 g
Dimensions	W: 30 mm H: 40 mm D: 5 mm

72557BJ Name plate with corridor lamp CL 420J (red/green)



Labeling element with integrated room signal light in LED technology and limiter elements on top / bottom to prevent removal of the plexiglas cover plate. Thus designed for use in forensic facilities. With insert.

Item consisting of:
- Aluminum strand profile
- Pre-bent cover plate made of anti-glare plexiglas
- Limiter elements on top / bottom
- LED signal lamps red, green
- Translucent insert for self-labeling

Technical Data

Color	silver, similar to RAL 9006
Dimensions	W: 160 mm H: 160 mm D: 18 mm

Accessories

72557ZJ Vacuum lifting pad for exchange of the foil
72557Z1 Paper for CL 4xx nameplates

72557ZJ Vacuum lifting pad for exchange of the foil

Suction unit for lifting the pre-bent cover plate made of anti-glare plexiglass. Required to replace the foil insert.

Notes



Clino Dashboard System description 114-115

Clino Dashboard

System description

The display and information system Clino Dashboard is used to display information, calls and alarms as part of the medical and nursing processes of healthcare facilities. Clino Dashboard thus provides information where it is needed and where it makes sense which helps to optimize processes, shorten walking distances and increase patient safety. As a part of a call system Clino Dashboard can be used for visualization medium of alarm calls or local data and/or as part of a medical alarm management system, e.g. in combination with a telemetry or medical monitoring system. Thus medical and patient specific information can in restricted areas be put on display in the corridor (ceiling mounting) or on the wall (wall mounting) so that nursing or medical staff are quickly and conveniently provided with the most important information by a relatively large and clearly legible screen/display. Information can be integrated from other alarm management systems (e.g. via alarm server, etc.) or from existing DECT systems.

Depending on the priority of the respective event, the alarms are displayed in different colors. The system can be connected to any call or monitoring system, which supports the ESPA 4.4.4. protocol for forwarding information. If required, general information such as time, messages, appointments, etc. can also be shown.

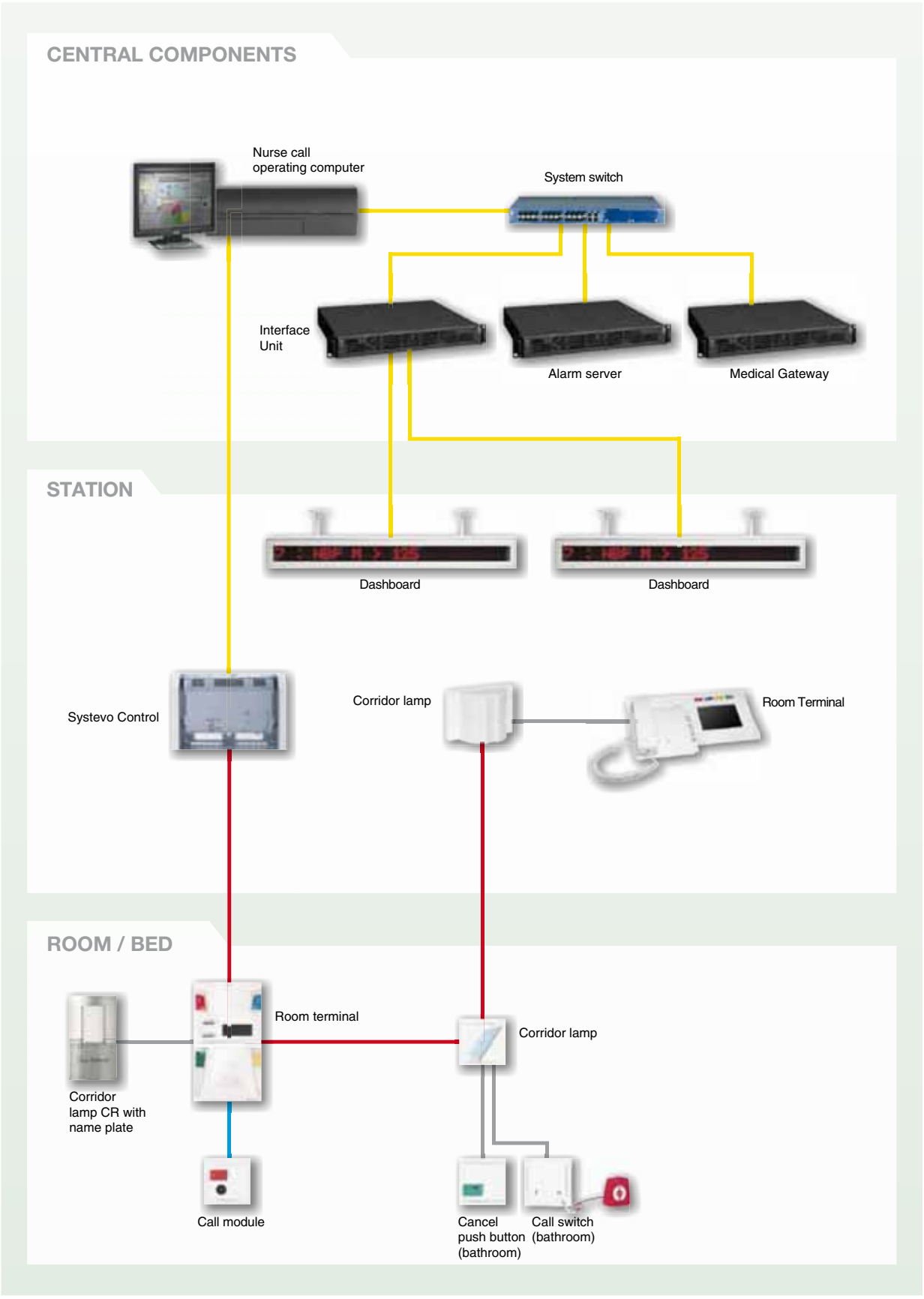
When connected to a medical monitoring system (e.g. patient monitoring system), Clino Dashboard acts as a secondary alarm system together with the call system. It is therefore not a substitute for the primary alarm display system (e.g. monitoring system), but is meant to support the primary alarm system. The issuing of messages via the displays or via the call system (incl. via paging and DECT systems) cannot be guaranteed or confirmed. These systems are not to be regarded as a substitute for monitoring by the nursing staff, nor for the skilled analyses or assessments for medical/clinical situations. Now as before, alarm messages within the medical monitoring network are to continue to be viewed as the primary alarm system.

Both the prioritization as well as the display of alarms and messages are freely configurable and can be easily adapted to match user requirements and processes. Up to 24 characters can be displayed. The displays are available as unicolor (red) or multicolor (red, orange, green) units. Special display sizes (multiline, > 24 characters, etc.) and alternative color displays can be provided on request.

The system consists of different display variations, an interface PC with the required Clino Dashboard interface software. Depending on the integration of the system into an existing IT structure, one or more com servers may have to be upgraded.

The displays require a 230 V power supply and minimum CAT5 network connection; they are integrated into LAN via standard RJ45 connections. The interface PC and com server are installed in the junction boxes. When integrating and forwarding information into the Ackermann call system, certain system requirements of the call system are to be met. An Ackermann Clino System workstation is required as a general rule.

Contact us if you would like us to develop a customized Clino Dashboard solution based on your requirements.


CENTRAL COMPONENTS
Nurse call operating computer
System switch
Interface Unit
Alarm server
Medical Gateway
STATION
Dashboard
Dashboard
Systevo Control
Corridor lamp
Room Terminal
ROOM / BED
Room terminal
Corridor lamp
Corridor lamp CR with name plate
Call module
Cancel push button (bathroom)
Call switch (bathroom)
Ethernet / LAN
Room bus
Direct connection
Bedside bus

Notes



Clino Guard

System description 118-119
Central components 120
Transponder 121
Accessories 122

With Clino Guard, Ackermann's care system for disoriented persons, the monitoring of this patient group is made significantly easier. Depending on the desired protection goals, alarms are generated or safety installations are activated, if a care recipient wants to leave the building unaccompanied by care personnel, or intends to enter an area without permission.

Discrete but effective

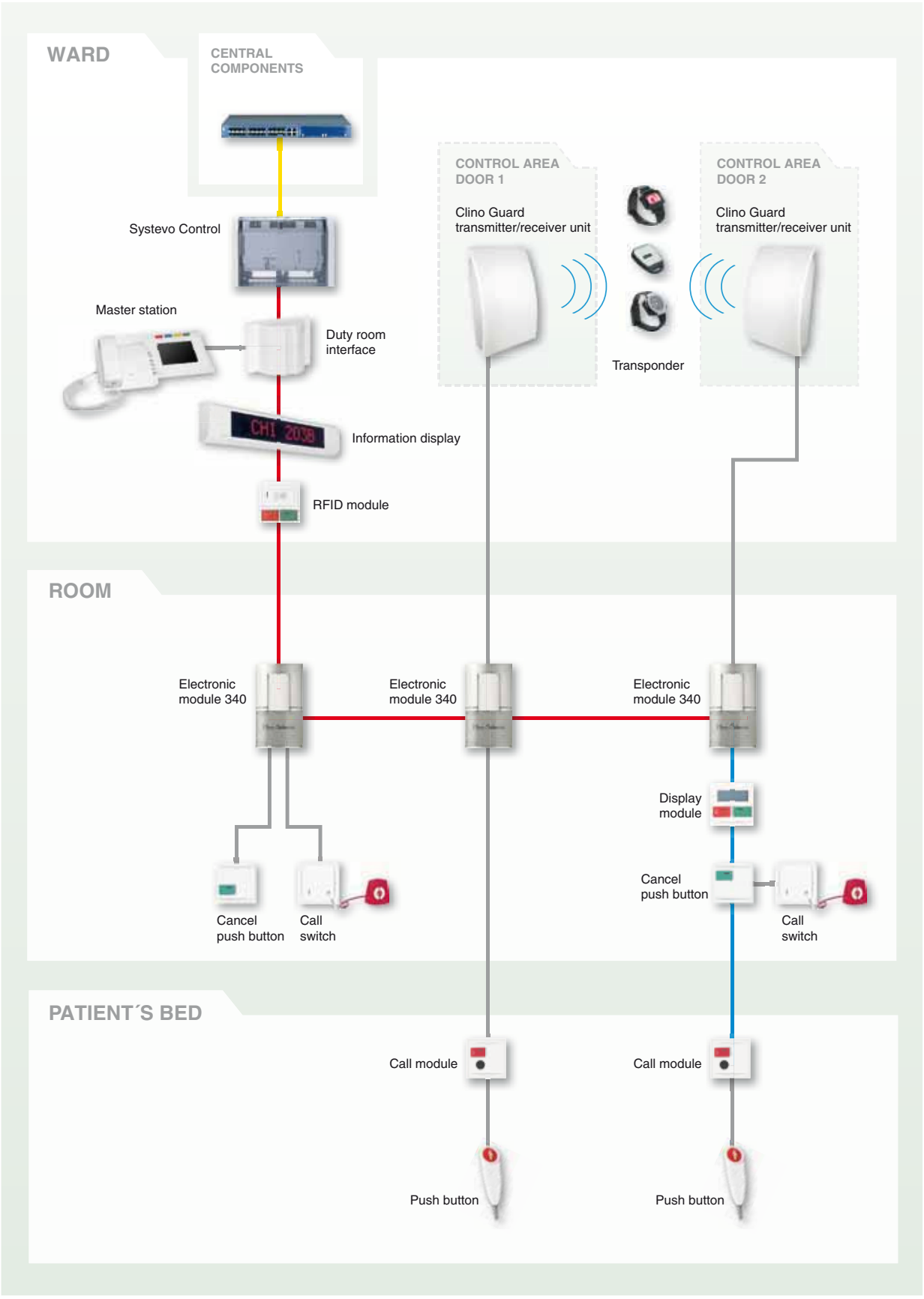
Clino Guard by Ackermann provides efficient support for those in need of care. The system's benefit lies in the creation of virtual protection zones in which the patient, care personnel, visitors, and other residents can move around without feeling restricted or locked up. This increases the quality of life of persons in need of care and simultaneously offers maximum safety. The related reduction of the care personnel's workload also positively influences the overall working atmosphere.

Safety first

A particular focus was laid on a perfectly reliable localization. Active transponders with three-dimensional working antenna coils are used to safely detect anywhere over a wide range. A high level of transmission security is reached by using different frequencies in the system. While the low stand-by frequency (125 kHz) of the transmitter/receiver units allows for minimum body impact and optimal range adjustment, a high operational frequency (868 MHz) establishes fast and reliable data transmission when the transponder is inside the protection sector. A special procedure in the transmit/receive unit readjusts the field of reception within fractions of a second; for example, if large metal objects which may disrupt the magnetic field are brought into play, thus preventing a secure reception on the basis of traditional procedures. The transponders differ by care-giver and care-recipient. They are available in different designs, for different carriers and with secure fasteners which ensures a high degree of acceptance. The technology used facilitates a secure operation with an extremely long life cycle of the monitored battery.

Application

In the simplest case, a transmitter/receiver unit which produces a low frequency, spherical receiver field with a radius of 3.5 m (compact reader) or 7 m (wide-range reader) is installed in the door area. If required, additional antennas allow an optimal adjustment to the structural environment. The patient or care-staff transponders are allocated to the transmitter/receiver unit. If one of the transponders enters the receiver field, it transmits its identification code. The transmitted identification code is then evaluated by the unit. If a patient transponder is recognized, a certain reaction is initiated, e.g. a call is triggered in the connected nurse call system and, if desired, the call is documented and signaled to the respective office, as specified in the preprogrammed allocation. It is also possible to transmit the call as an SMS, voice mail, etc. The call is not triggered, if a care-staff transponder–both with and without a patient transponder is identified. Optionally, other actions can be allocated as well, e.g. automatic door locking or elevator control. The system can, of course, also be used for hardware protection and bed logistics beside the personal security aspect. Thanks to its modular system structure, an expansion with PC technology for convenient configuration and networking of individual units into one system is possible at any time. In this way, many areas of application are conceivable, ranging from the recognition of (directed) movements to the implementation of specific monitoring, identification, and signalling applications.


WARD
CENTRAL COMPONENTS
Systevo Control
Master station
Duty room interface
Information display
RFID module
CONTROL AREA DOOR 1
Clino Guard transmitter/receiver unit
CONTROL AREA DOOR 2
Clino Guard transmitter/receiver unit
Transponder
ROOM
Electronic module 340
Electronic module 340
Electronic module 340
Cancel push button
Call switch
Display module
Cancel push button
Call switch
PATIENT´S BED
Call module
Call module
Push button
Push button
Ethernet/LAN
Corridor databus
Direct connection
Bed databus

790P100 **Locator / receiver unit "Universal V"**



Active transponder system with adjustable range up to 3.5 m radius. Consisting of an antenna unit (868 MHz operating frequency, 125 kHz stand-by frequency), an evaluation unit with relay contacts (changeover), integrated alarm signaling device, and 230 V power supply (integrated).

Expandable with a relay card for zone identification and an additional external antenna (if necessary also via reproducer).

Technical Data

Dimensions	W: 250 mm H: 325 mm D: 63 mm

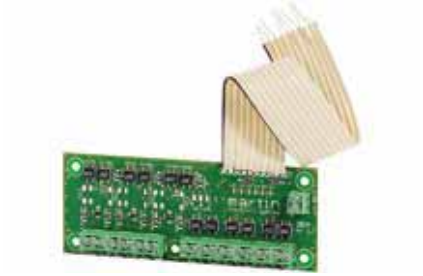
1x Antenna unit (868 MHz operating frequency, 125 kHz rest frequency)
1x evaluation unit with relay contacts (SPDT)
1x built-in signal generator
1x 230 V power supply (installed)

790P103 **Locator / receiver unit "Universal V IP64"**



As 790P100, but in external housing with IP 64 moisture protection.

790P137 **Relay card - Locator / receiver unit "V"**



The “compact,” “long distance,”, and “loop” transmit/receive units can be expanded by the relay card for identification of several persons or groups. Up to fivepersonsor groups can be differentiated.

For example, the outputs can be used for connection to the nurse callsystemin order to generate dedicated alarms in the respective station. Additionally, a reader-monitoring notification or also a battery status onward transmission can be generated.

The allocation of a patient transponder occurs directly via the relay card.

790P033 **Additional Antenna - compact**

Additional antenna to adjust the detection range to special architectural requirements by up to 3.5 m.

790P031 **Auxiliary LF antenna (optional)**

Supplement of transmitter/receiver unit - long distance. This auxiliary LF antenna for long distance is to be used for ranges exceeding 5.5 m. Especially suitable to adjust the receiver area to special structural demands such as wide entrance doors, for example.

790P120 **Patient-transponder pendant**



Patient transponder with three-dimensional antenna and battery monitoring.

790P121 **Patient-transponder watch dummy**



Patient transponder with three-dimensional antenna and battery monitoring. The bracelet can only be opened with a magnetic key held by the care personnel.

790P122 **Patient-transponder watch**



Patient transponder with three-dimensional antenna and battery monitoring. The bracelet can only be opened with a magnetic key held by the care personnel.

790P124 **Transponder for care giver**



Personal transponders with one-dimensional-looking antenna and battery monitoring, Call restriction and to call canceling. This transponder is not as patient transponder suitable.

790P050 **Leather case**



Leather case with magnetic fastener (white button) for patient transponder (790P010, 790P120) to be attached to clothing (e.g. to the belt) including accessories.

790P053 **Magnetic key**



Magnetic key integrated in a bag to open the magnetic fasteners (white button and bracelet). For nursing personnel only.

790P054 **Spare bracelet with fastener**



Spare bracelet for bracelet transponder (Part No. 790P12, 790P013, 790P121).

790P051 **Spare fastener**

Complete additional magnetic fastener (white button)

5 pcs

790P052 **Spare bracelet with fastener**

Spare bracelet for wrist watch transponder (Part No. 790P11, 790P122).



Clino Guard plus Central components 124-129
Transponder 130-132

790P400 Basic starter package



Basic starter package for a single-door transponder system, consisting of a transmitter unit and a receiver unit, with the option of upgrading to an "Online system".
Transmitter unit with permanent LF field with an adjustable range of up to 5 m (exciter frequency: 9 KHz), field can be extended by using up to 4 "slave" transmitter units. Individual set-up of transmitter unit ID with the option of alarm suppression via the integral control input in the transmitter unit, e.g. via an external door contact.
Receiver unit reliably detects patient and staff transponders (reception frequency: 868 MHz). Alarms are reliably signaled via the integral relay contact, e.g. for transmission to the nurse call system. Integral buzzer for acoustic signaling of an alarm locally. Alarm suppression on active confirmation by a staff transponder (outside the active detection area, radius depends on building design: max. approx. 30 m), or when the staff transponder is recognized within the detection area of the transmitter unit. Transponder battery monitoring with acoustic signal and fitted with LED signal elements for local status display, and also includes a local reset function. Transmitter and receiver units can be networked via an RS-485 data bus that can be extended by the license update "Basic starter package for online system" (required for each starter package), with the option of migrating all activities to the "Basic Software Online System" via Ethernet-LAN (TCP-IP/RS485 converter required). PSU via the separate 230 V AC/12 V DC power supply/UPS combination.
RS 485 (RJ45 terminals), optional end-of-line resistor.

Technical Data

Operating voltage	12 V DC
Current consumption	0.5 A
Frequency band	868 MHz
Contact load	20 V/1 A (Change-over contact)
Sensitivity	0.5 to max. 5 m radius (transmitter unit), dependent on ambient conditions
Ambient temperature	0 °C ... 60 °C
Air humidity	< 95 % non condensing
Dimensions	W: 200 mm H: 200 mm D: 30 mm (transmitter) W: 150 mm H: 150 mm D: 25 mm (receiver)

Accessories

790P412 License-Update BSP->Online
790P410 Basic software online-system
790P407 Power supply / UPS 230VAC-12VDC 2A
790P402 Locator unit slave
790P404 TCP-IP / RS485 converter

790P412 License-Update BSP->Online



License update for the "basic starter package online system" with the ability to transfer all activities to "base-line software system" via Ethernet LAN. Separate license update per starter package is necessary. (TCP-IP/RS485-converter required).

790P401 Locator unit



Transmitter unit with permanent LF field with an adjustable range of up to 5 m (exciter frequency: 9 KHz), field can be extended by using up to 4 "slave" transmitter units. Individual set-up of transmitter unit ID with the option of alarm suppression via the integral control input in the transmitter unit, e.g. via an external door contact. A transponder receives the transmitter unit ID and transmits this ID to the receiver unit together with its own transponder ID. Transmitter and receiver units can be networked via an RS-485 data bus, option of using the "Online System" to migrate all activities to the "Basic Software Online System".
Fitted with LED signal elements for local status display, and also includes a local reset function.
PSU via the separate 230 V AC/12 V DC power supply/UPS combination (up to 2 units).
RS 485 (RJ45 terminals), optional end-of-line resistor.

Technical Data

Operating voltage	12 V DC
Current consumption	0.5 A
Sensitivity	0.5 to max. 5 m radius (transmitter unit), dependent on ambient conditions
Ambient temperature	0 °C ... 60 °C
Air humidity	< 95 % non condensing
Dimensions	W: 200 mm H: 200 mm D: 30 mm

Accessories

790P407 Power supply / UPS 230VAC-12VDC 2A

790P402 Locator unit slave



Optional "slave" transmitter unit to extend the coverage (doors/zones) of a higher-level transmitter unit, connected via the RS485 data bus. With permanent LF field with an adjustable range of up to 5 m (exciter frequency: 9 kHz), synchronized with the transmitter unit.
PSU via the separate 230 V AC/12 V DC power supply/UPS combination (up to 2 units).
RS 485 (RJ45 terminals), optional end-of-line resistor.

Technical Data

Operating voltage	12 V DC
Current consumption	0.5 A
Sensitivity	0.5 to max. 5 m radius (transmitter unit), dependent on ambient conditions
Ambient temperature	0 °C ... 60 °C
Air humidity	< 95 % non condensing
Dimensions	W: 200 mm H: 200 mm D: 30 mm

Accessories

790P407 Power supply / UPS 230VAC-12VDC 2A

790P403 Receiver unit



Receiver unit for reliable detection of patient and staff transponders (reception frequency: 868 MHz). Alarms are reliably signaled via the integral relay contact, e.g. for transmission to the nurse call system. Integral buzzer for acoustic signaling of an alarm locally. Alarm suppression on active confirmation by a staff transponder (outside the active detection area, radius depends on building design: max. approx. 30 m), or when the staff transponder is recognized within the detection area of the associated transmitter unit. Transponder battery monitoring with acoustic signal and fitted with LED signal elements for local status display, and also includes a local reset function. Transmitter and receiver units can be networked via an RS-485 data bus, option of using the "Online System" to migrate all activities to the "Basic Software Online System" via Ethernet-LAN (TCP-IP/RS485 converter required). Fitted with LED signal elements for local status display, and also includes a local reset function.
PSU via the separate 230 V AC/12 V DC power supply/UPS combination (up to 2 units).
RS 485 (RJ45 terminals), optional end-of-line resistor.

Technical Data

Operating voltage	12 V DC
Current consumption	0.5 A
Frequency band	868 MHz
Contact load	20 V/1 A (Change-over contact)
Ambient temperature	0 °C ... 60 °C
Air humidity	< 95 % non condensing
Dimensions	W: 150 mm H: 150 mm D: 25 mm

Accessories

790P407 Power supply / UPS 230VAC-12VDC 2A
790P410 Basic software online-system
790P404 TCP-IP / RS485 converter

790P404 TCP-IP / RS485 converter



TCP-IP/RS485 converter to connect the transmitter/receiver units and optional input/output modules (max. 30 components) to the nurse call server for the Clino Guard plus system via Ethernet-LAN. Fitted with an RJ45 socket for use with Ethernet-LAN (10/100MBit). RS485 data bus wired via the CAT5 junction box supplied and the associated connecting lead. Fitted with 3 LED signal elements for local status display. Components and TCP-IP/RS485 converter are administered via the "Basic Software Online System“.

Technical Data

Output voltage	12 V DC
Ambient temperature	0 °C ... 60 °C
Air humidity	max. 95 % non condensing
Installation	aP
Version	Metal housing
Dimensions	L: 90 mm W: 64 mm H: 23 mm

Data bus: RS485 (D-SUB socket 25-pin)
Ethernet-LAN: RJ45 terminals

TCP-IP/RS485 converter, CAT5 junction box, connecting lead

Accessories

790P407 Power supply / UPS 230VAC-12VDC 2A

790P405 Input / output module



Interface unit with 16 inputs and 16 outputs to connect external systems to Clino Guard plus via potential-free contacts. Control of outputs and evaluation of inputs depends on the configuration of the higher-level "Basic Software Online System". Inputs are used in quiescent current or normally open circuit technology and outputs are used as NC or NO contacts.

Technical Data

Operating voltage	12 V DC
Current consumption	1 A
Inputs	16
Outputs	16
Ambient temperature	10 °C ... 60 °C
Mounting	Wall mounting
Air humidity	20.....80 %
Version	Metal housing
Dimensions	W: 166 mm H: 202 mm D: 39 mm

Integration into the Clino Guard plus system via the TCP-IP/RS 485 converter with associated connecting lead.

Accessories

790P404 TCP-IP / RS485 converter
790P406 Cable for input / output module
790P407 Power supply / UPS 230VAC-12VDC 2A

790P406 Cable for input / output module

Connecting lead for interface unit.

790P407 Power supply / UPS 230VAC-12VDC 2A



Device combination consisting of single-phase power supply (12 V DC/2 A) for the constant DC supply and as an uninterruptible power supply (Online DC-UPS) to components of the Clino Guard plus system. Compact construction using the latest circuit technology with integral battery module (7 Ah), ready for wall mounting.
Fitted with tamper contact and fault message contact in case of power failure. The device status is shown on an LED display: AC mains power, power failure (UPS operation).
To achieve the maximum bridging period, the battery must be replaced every 4 years.

Technical Data

Rated voltage	230 V AC
Rated frequency	47 ... 63 Hz
Output voltage	12 V DC
Output current	max. 2 A
Battery capacity	7 Ah
Ambient temperature	10 °C ... 60 °C
Mounting	Wall-mounting
Air humidity	20.....80 %
Type of protection	IP20
Weight	approx. 7 kg (incl. condensator)
Dimensions	W: 350 mm H: 330 mm D: 105 mm (housing) W: 150 mm H: 100 mm D: 65 mm (condensator)

790P410 Basic software online-system



Software module "Basic Software Online System" for administration and configuration of the Clino Guard plus. For installation on the operating computer of the communication system nurse call server (minimum requirement: Windows XP Pro) with facilities for setting up the transmitter/receiver units and optional input/output modules. Allocation of transponder configuration data (patients, baby, staff, devices, etc.) and dependencies between different transponders (e.g. mother/baby transponders) and associated escalation stages. Configuration saved in a system database for data backup and further use, e.g. on the communication system operating computer. Administration of all incoming activities and alarms (transponders, inputs) and execution of the dependent escalation stages. All system components monitored and all activities saved in online mode.
Administrator access rights required to adapt the ETH-LAN network card (10/100) settings to the system environment of the Clino Guard plus. Full TCP/IP network card support required for access to the ETH-LAN.

Application software for the following functions:
- Configuration tool
- Allocation of transmitter and receiver units (incl. inputs and outputs)
- Allocation of transponder configuration (name, ID, function, battery monitoring)
- Definition of system parameters for Clino Guard plus
- Setting up alarm types (name, type)
- Configuration of input and output modules for control of external systems
- Service functions
- Database management system for configuration data storage
- Simple system management tools for system analysis
- All system activities saved
- Set-up of fault monitoring
- Ready for further license updates (video surveillance, graphical user interface and access control, etc.)

Optionally:
- Message transmission to a wireless message system (e.g. personal paging system - PPS
- or telecommunications system - DECT)
- Freely configurable pager addresses for messages from Clino Guard plus
- Definition of the display format for the messages to be transmitted
- Assignment of repeat intervals, acoustic call signals, etc.

Accessories
790P411 IPC-driver for online system
790P413 ESPA-driver for online system

790P411 IPC-driver for online system



License update for the "Basic Software Online System" with the option of migrating all activities to the communication system via IPC interface. A license update is required for each system. An existing System 99plus is required.

Check the hardware and software compatibility (operating computer and nurse call system)!

790P413 **ESPA driver for online system**

License update for the "Basic Software Online System" to connect a message transfer system to Clino Guard plus via ESPA 4.4.4. Option of adapting the settings to the project-specific requirements of the care facility.
Call messages from the system are transmitted to the connected message transfer system according to the configuration and displayed by the configured DECT telephones. Administrator access rights are required to change settings, e.g. to adapt the serial interface to the system environment.

Application software for the following functions:
- Configuration tool with database management system for data storage
- Serial interface set-up (RS232/RS422)
- Freely configurable pager addresses
- Allocation of alarm messages to pager addresses
- Assignment of repeat intervals
- Adjustment of acoustic call signals
- Configuration of different escalations for each call type group
- Definition of the display format for the messages to be transmitted

Prerequisites:
- Software module "Basic Software Online System" Clino Guard plus
- Operating computer of the comunication system with free serial interface
- Serial connecting lead

Check hardware-software compatibility!

790P420 Transponder for the "dementia" patient



Transponder for patients with dementia, to be worn on the wrist. Transponder is actuated if it enters the permanent LF field of a transmitter unit. The transponder processes the transmitter unit ID and transmits this ID to the receiver unit together with its own transponder ID. The battery status is also transmitted.
Transmission range up to 25 m, dependent on ambient conditions

Technical Data

Operating voltage	12 V DC
Battery life expectancy	approx. 70,000 entries (battery)
Frequency band	868 MHz
Ambient temperature	0 °C ... 60 °C
Color	white
Version	Plastic housing
Dimensions	W: 37 mm H: 45 mm D: 10 mm

The transponder can be used with the "Single-door transponder system" and the "Online system".
Battery type CR 2025

Transponder incl. battery

Accessories
790P427 Bracelet (rubber) for transponder
790P428 Bracelets for transp. "dementia"

790P421 Transponder for the patient "alarm"



As part no. 790P420, but also has an alarm button. Patient can activate an alarm, even on the move. Alarm is acknowledged via the integral LED.

The transponder can only be used with the “Online system“. There must also be full reception coverage throughout the building.

Accessories
790P427 Bracelet (rubber) for transponder
790P428 Bracelets for transp. "dementia"
790P426 Bracelet (velcro) for transponder

790P422 Transponder for baby



As part no. 790P420, but specially designed for monitoring a baby. Use in conjunction with an associated mother transponder for alarm suppression.

The transponder can only be used with the "Online system“.

790P423 Transponder for mother



As part no. 790P420, but specially designed to be worn by a mother´s whose baby is wearing the baby transponder. The alarm can only be suppressed if the mother transponder which has been assigned to a baby transponder enters the permanent LF field of a transmitter unit.

The transponder can only be used with the "Online system“.

Accessories
790P426 Bracelet (velcro) for transponder

790P424 Transponder for care giver



As part no. 790P420, but specially designed to be worn by a nurse. Also fitted with a confirmation button. The alarm can be suppressed if a patient transponder enters the permanent LF field of a transmitter unit in conjunction with the staff transponder. The confirmation button also enables the nurse to suppress an alarm even outside the LF field of the receiver unit by setting the receiver unit to inactive. Button confirmation is acknowledged via the integral LED.

The transponder can be used with the "Single-door transponder system" and the "Online system".

Accessories
790P426 Bracelet (velcro) for transponder

790P425 Transponder for surveillance



The calibration transponder is used during commissioning of the Clino Guard plus system, specifically to detect and establish the radio range of the transmitter units. The LED integrated into the transponder lights up when the wearer enters the LF field.
The LED goes out when the wearer leaves the radio range of the transmitter unit. An acoustic acknowledgement in the receiver unit is triggered by pressing a button on the calibration transponder.
The transponder can be used during commissioning of "Single-door transponder systems" for assignment of transmitter and receiver units.

Technical Data

Color	red

790P426 Bracelet (velcro) for transponder



Bracelet to enable a transponder to be worn on the wrist. Can be reused many times thanks to the easy-to-open Velcro fastener, specifically designed to attach the transponder to the wrist.

Technical Data

Color	gray
Dimensions	L: 275 mm W: 25 mm

790P427 Bracelet (rubber) for transponder



Rubberized bracelet to enable a transponder to be worn on the wrist. Bracelet closure cannot be opened, to prevent deliberate removal. The bracelet can only be removed by destroying it.

Technical Data

Color	dark-gray
Dimensions	L: 330 mm W: 18 mm

790P428 Bracelets for transp. "dementia"



Bracelet to enable a transponder to be worn on the wrist. Bracelet closure cannot be opened, to prevent deliberate removal. The bracelet can only be removed by destroying it.

Technical Data

Color	cream white
Dimensions	L: 286 mm W: 24 mm

Packing unit: 50 pcs

790P429 **Accessories (10 caps plus sealings)**

Set of spare parts for white transponders, consisting of 10 covers with seals and a tool to open the transponder cover.

 10 covers, 10 seals, 1 tool



Life Care System System description 134

System description

The Ackermann Life Care System is optimally suited for flexible project solutions due to its modular construction. The system offers in-house emergency call functions conforming to EN 50134 standards thanks to the different Life Care controllers, the corresponding accessories and an emergency assistance control panel.
In addition, the link to the communication system call system is carried out via a dedicated interface which enables a plain text transmission.
The core element of the Life Care System is the Life Care controller connecting different activation units with or without cables, or via the in-house emergency call frequency (869 MHz). In most common alarm protocols, alarm notifications are sent to any dial tone-capable telephone terminal or alternatively to an emergency assistance control panel.

Alarms
If an alarm is triggered, the LifeCare controller automatically dials predefined telephone numbers and transmits information such as the identification of the device and the respective alarm type. The alarms are categorized by alarm source: Category 1 for urgent alarms, Category 2 for information notifications and system errors, Category 3 for service calls.

Alarm signaling
The actuation of the alarm and the connection to the in-house emergency call control panel are signalized by the device both acoustically and optically through different audio and light signals. In order to prevent false alarms, the connection setup can be delayed by an adjustable time (pre-warning time). During certain alarms, e.g. an emergency call, a voice connection can be established with the person in need of assistance via the microphone and loudspeaker integrated in the device.

Installation
The controllers, connected to the telecommunications network with standard telecom plugs, are powered with a plug-in 230 V mains power supply. In addition, the controllers have an emergency power supply by means of a battery and monitor both the power supply voltage, the battery capacity, and the availability of the telecommunications network. Disturbances are reported to the controller and/or to the receivers programmed for fault messages.

Contact us if you would like us to develop a customized Life Care System solution based on your requirements. You can find more information about Life Care System products in our Life Care System brochure.



Clino Call DECTplus

System description	136-137
Central components	138-143
Mobile units	144-147

Being mobile and also reachable is no longer considered a luxury in care facilities – it has become a necessity. A care recipient call must immediately reach the care staff responsible, without unnecessary forwarding and delay – especially where staff members are at a minimum. Clino Call DECTplus expands the portfolio of mobile communication solutions which has been in place and proven for years, not only in terms of expansion possibilities but also concerning the range of functionalities.

Wireless, Modular and Secure
Clino Call DECTplus can be easily integrated into existing telecommunications systems and comments them by mobile telephoning and paging. The wireless communication system is connected to the existing call system via a standardized interface. That is how calls and alarms from various systems can be prioritized and be transmitted to the respective recipient as plain text in the mobile device's display. Through the assignment of different ring tones, the care staff can recognize the priority of an incoming call without having to take the mobile device out of the belt clip. An additional paging system becomes redundant with Clino Call DECTplus: The staff uses the advantages of mobile voice communication and the text message services via a single terminal device. Another advantage, especially in large facilities, is provided by the “Broadcast Messaging” function. This function facilitates a parallel and thus quick transfer of messages to groups of recipients or to all mobile devices at the same time. Only sequential addressing of pagers was possible. Now, one message can be sent to all subscribers via the system.

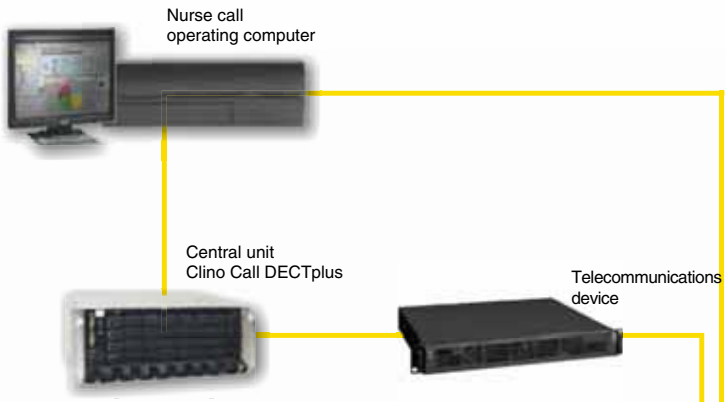
New Central Control Units for up to 255 Base Stations
The core of Clino Call DECTplus is the new central unit. It controls communication between the mobile devices registered in the system and the telecommunications system connected. Furthermore, it forwards the call system messages to the mobile devices via the base stations should the telecommunication system break down. It also controls the voice and data signals between the base stations within the whole transmission network. The modular structure now allows for a gradual system expansion up to 255 base stations and approximately 1,000 mobile devices. The system is therefore also suitable for use in mid-sized to large care facilities.

Reliable and Robust
Apart from fulfilling maximum security standards, the system also ensures top voice quality. Data with the Clino Call DECTplus are transmitted out in a tap-proof mode. Maximum security demands are the foundation of this mobile concept, too. The devices have an exceptionally appealing and robust design: the rubberized surface absorbs shock should the device fall down and the IP 64 moisture protection prevents moisture and contaminants from penetrating into the device during daily care or cleaning.

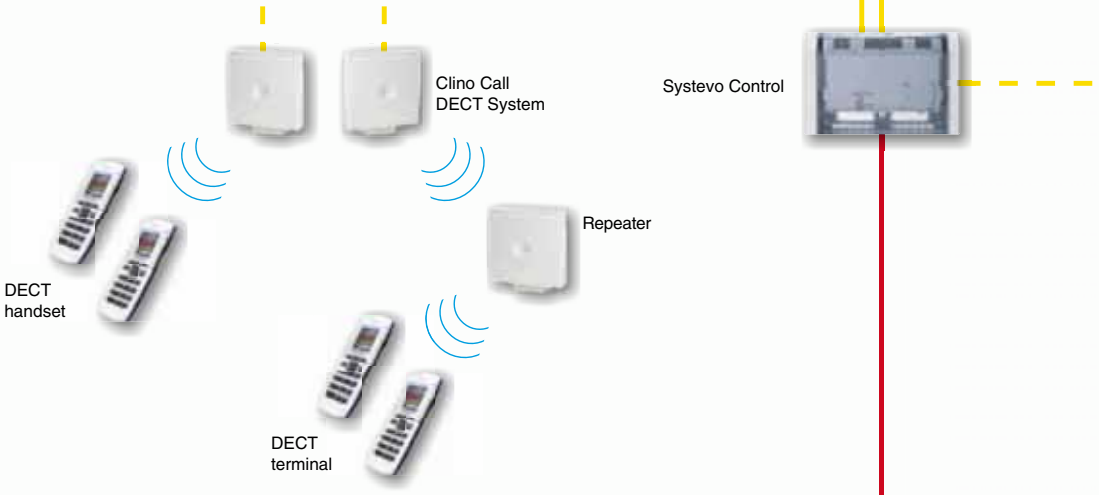
Additional Protection for Personnel
The system is also available with an emergency and locating function. The Clino Call DECTplus is equipped with an option for manual and automatic alarm triggering via an emergency button. The locating function identifies a person’s position with the scene of an incident being displayed on a site map. This creates a “safe feeling” – especially during night shifts.
Clino Call DECTplus Expands the Possibilities of Mobile Care Communication.

Long Term Investment Security
Clino Call DECTplus offers maximum investment security through its integration potential and its modular system structure. This mobile communication solution is independent of the telecommunications system and can be retained even if the telecommunications system is changed –even if changed to VoIP (optional). In order to expand existing Clino Call DECT systems only the control panel needs to be exchanged – infrastructure, mobile devices and repeater can still be used and complemented, if necessary. It is even possible to connect standard terminal devices for applications in the administration area.

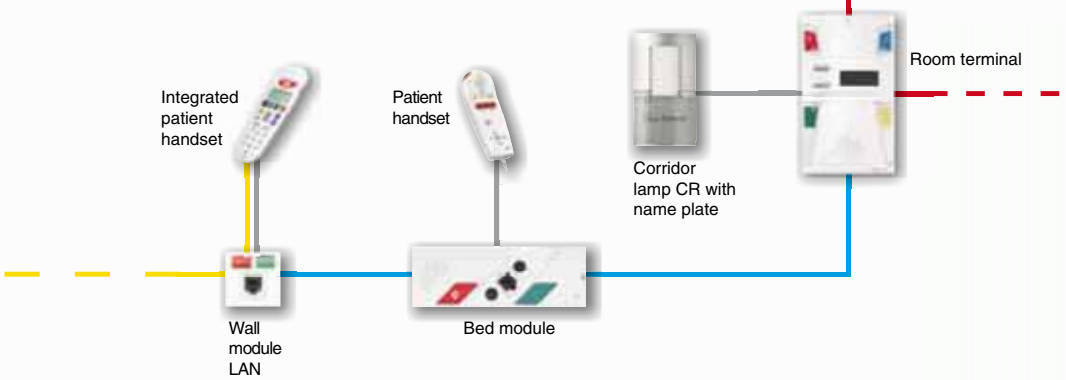
CENTRAL COMPONENTS



WARD



ROOM / BED



Ethernet/LAN
Room bus
Direct connection
Bedside bus

790D150 Central control unit Clino Call DECTplus



Central unit as a base case for the telecommunication system according to the DECT / GAP Standard to expand a PBX with analog extensions participants and /or VoIP subscribers. The modular system expansion of the Central Unit in accordance with the Customer requirements with a CPU board and different plug-in cards for the Management of DECT base stations and extension stations (a / b, and VoIP / SIP).In a system Clino Call DECT-plus up to 250 base stations and 500 DECT Telephone be used. It is mounted in a 19 "cabinet or alternatively in conjunction with the optional wall bracket.

Technical Data

Power supply	230 V AC +/-10 %, 250 VA
Current consumption	max. 9,48 A @ 19 V DC
Frequency range	1880 ... 1900 MHz
Ambient temperature	0 °C ... 40 °C
Mounting	for installation in rack housing
Weight	approx. 5.34 kg without power supply (max. 12 kg with power supply units)
Approval	TBR6(DECT RF),TBR22(GAP), EMC ETS300329,CE
Dimensions	W: 422 mm H: 177 mm D: 330 mm

Central control unit, Clino Call DECTplus
System documentation
System software for set-up and configuration

Features

- Maximum 8 plug-in boards for base stations and DECT telephones
- Includes 1 power supply for powering plug-in boards
- Additional power supply required, if more than 4 “Control Unit Base Stations” plug-in boards are used
- Redundancy option with additional power supply
- Networking of max. 8 central control units
- Transmission of SMS text messages to DECT tele-phones via RS 232
- VoIP-ready
- 4 HE plug-in slot heights

Accessories

790D001 Connecting lead 5 m PC/Clino
790D155 or 790D156 CPU board for central control unit 19“
790D160 Control unit base stations (8)
790D170 or 790D175 PABX interface card (8 a/b or 16 a/b)
790D177 PABX interface card VoIP/SIP
790D180 Power supply for central control unit 19“
790D185 Wall mounting kit for central control unit 19“

790D15B Central control unit Basic Clino Call DECTplus



Central control unit optimized for small to medium-sized systems as a basic housing for the telecommunications system to DECT/GAP standard, to extend a telephone system with analog extension users and/or VoIP users. Already fitted with CPU board (without LINK communication interface) and 1 plug-in board for administration of up to 8 DECT base stations. The modular central control unit system can be upgraded to meet customer requirements with 2 additional plug-in boards for administration of DECT base stations and extension users (a/b and VoIP/SIP).
Up to 150 DECT telephones can be administered from the Basic Clino Call DECTplus central control unit.

Technical Data

Power supply	230 V AC +/-10%, 250 VA
Current consumption	max. 3,16 A @ 18,1 V DC
Frequency range	1880 ... 1900 MHz
Ambient temperature	-10 °C ... 40 °C
Mounting	Station housing
Weight	approx. 1.16 kg (without power supply)
Dimensions	W: 194 mm H: 177 mm D: 330 mm

Central control unit, Basic Clino Call DECTplus
System documentation
System software for set-up and configuration

Features

- 1 small central control unit housing with back-plane
- 1 power supply to power the plug-in boards
- Max. installation of 1 CPU board and 3 additional plug-in boards
- TBR6(DECT RF), TBR22(GAP), EMC ETS300329, CE

790D155 CPU card for central control unit 19"



With processor unit and serial interface as well as ETH connection. With interface to network several central control units.
• 1 serial interface (RS 232) for configuration of central control unit via a system PC, message transmission (paging)
• Communication management between DECT phones registered in system and PABX control of voice and data signals between individual base stations in entire transmission network

Technical Data

Frequency range	1900 ... 1880 MHz
Ambient temperature	0 °C ... 40 °C

Il existe une référence de carte CPU ne permettant pas l'extension vers un deuxième frontal (nous consulter)

Features

Inputs/outputs:
- Serial interface RS232
- LINK communication interface
- ETH-LAN interface
- Status LEDs

Accessories

583486 Cat 5 patch cable, 1 m
790D157 Link cable for CPU card 790D155

790D156 CPU card for central control unit 19"



Same as Part No. 790D155, but no expandability.

Accessories

583486 Cat 5 patch cable, 1 m

790D160 Base station interface card (8)



Central control unit plug-in board for control of 8 cabled base stations (per board).
• For 1-8 base stations, with LED status indicators
• Voltage supply of base stations, max. cable length 1,000 m (TP CAT4, min. 0.8 mm)
• Additional power supply required for more than 4 plug-in boards. Connection type: RJ 45 (cable not included)

Technical Data

Frequency range	1880 ... 1900 MHz
Ambient temperature	0 °C ... 40 °C

An additional power supply to the central control unit is required for more than 4 base station control units.

Features

Inputs/outputs:
- Interface for 8 base stations
- Terminals: RJ45
- Integrated power unit for base stations
- Status LEDs

Accessories

583486 Cat 5 patch cable, 1 m

790D170 PABX-interface card (16 a/b)



Central control unit plug-in board for administration of 16 DECT telephones (per board).

Technical Data

Power supply	via central control unit
Ambient temperature	0 °C ... 40 °C

Accessories
583486 Cat 5 patch cable, 1 m

Features

- For 1-16 DECT telephones, with LED status indicator
- Supports clip function via “Clip FSK Bell”
- Connection to analog a/b substation connectors of telecommunication installation, max. cable length of 1,000 m (TP CAT4, min. 0.8 mm)
- Connection type: RJ 45 (cable not included)

790D175 PABX-interface board (8 a/b)



Same as Part No. 790D170 but for max. 8 DECT telephones.

Accessories
583486 Cat 5 patch cable, 1 m

790D177 PABX-interface board VoIP/SIP



Plug-in board for the central control unit for administration of up to 32 simultaneous speech channels for DECT devices via the VoIP/SIP interface of the telecommunications system. The PABX interface board VoIP/SIP and the CPU board for the central control unit are connected to the telecommunications system by separate ETH-LAN interfaces. The plug-in board is integrated into the Clino Call DECTplus central control unit and handles the communication and the control of the voice and data signals between the connected telecommunications system and cordless DECT telephones. Different performance features such as "Query" or "CLIP" take place via the basic range of functions defined in the SIP protocol.
Compatibility with telecommunications systems on request.

Technical Data

Power supply	via central control unit
Ambient temperature	0 °C ... 40 °C
Dimensions	W: 45 mm H: 140 mm D: 200 mm

Accessories
583486 Cat 5 +patch cable, 1 m

Features

Inputs/outputs and features:

- VoIP/SIP interface for 32 speech channels
- Voice Codecs supported (SIP):
- G.711 A-law /µ-law
- G.726 (32kbps - 4 bit ADPCM)
- ETH-LAN interface
- Status LEDs

790D001 Connection cable - serial (spare part)



Optional unit for alternative wall mounting of central control unit.

790D180 PABX-interface board (8 a/b)



The power supply is used to supply the central processing unit and the built-in cards and the connected base stations. It is needed, a second power supply unit, if more than four base stations control units can be used per CPU. In redundant mode, up to 4 power supplies are used.

Features

- Required for redundancy
- Required for use of more than 4 control units

790D185 Wall mounting kit for CCU 19"

Optional unit for alternative wall mounting of central control unit.

790D157 Link cable for CPU card 790D155



Used in systems with multiple central control units for the connection of CPU boards. Required for use of more than 2 central control units.

790D159 Patch panel 12 x CAT5 on LSA-plus



Compact RJ 45 patch panel with 12 x CAT5 sockets and LSA-plus connection terminals. Used for wiring the plug-in boards for the central control unit (e.g. for wall mounting), to connect the base stations and users of the telecommunications system (a/b or VoIP) with the central control unit. Suitable for wall mounting.

Technical Data

Ambient temperature	0 °C ... 40 °C
Color	light gray, similar to RAL 7035

Accessories

583486 Cat 5 patch cable, 1 m

Features

Inputs/outputs:

- 12 x RJ45 sockets, shielded
- 12 x LSA-plus connections
- Cat 6 / Class E to ISO/IEC11801 (9/2002) and EN50173

583486 Cat 5 Patch Cable, 1 m yellow (Ethernet)



790D130 DECT base stations



For the transmission of speech and data signals (up to 4 simultaneous speech channels) between a control unit and the mobile devices.
The base station data transmission and power supply is carried out via a two-wire connection (twisted wire-pair) from the base station's control board (maximum distance 1,000 m) . Maximum transmission range up to 50 m in the building (depending on structural conditions, layout and materials) and up to 300 m outdoors. The base station is wired via the supplied connection box.

Technical Data

Operating voltage	48 V DC
Power consumption	1.5 W
Frequency range	1880 ... 1900 MHz
Ambient temperature	0 °C ... 40 °C
Mounting	wall mounting (inside)
Weight	approx. 200 g
Dimensions	W: 150 mm H: 160 mm D: 36 mm (including antenna)

DECT base station including connector cable (2 m) and connection box

Features

- 1 base station for up to 4 concurrent speech channels

790D131 DECT base station for humid environments



Housing waterproof (IP 54). Otherwise the design is identical to base station 790D130.

Technical Data

Operating voltage	48 V DC (via central control unit) 48 V DC
Power consumption	1.5 W
Ambient temperature	0 °C ... 40 °C
Weight	approx. 200 g
Version	wall mounting (outside)
Dimensions	W: 150 mm H: 160 mm D: 36 mm (including antenna)

DECT base station for humid environments, connection cable (2 m), connection box and protective housing (IP 54)

Features

- 1 base station for up to 4 concurrent speech channels

790D140 DECT repeater



Repeater for speech and data signal transmission (a maximum of two parallel speech channels) between a base station and the mobile devices.

A repeater can be used to increase the transmission range of a base station by up to 50%. Wireless data transmission to the assigned base station (overlapping wireless range). Configuration is made via a programming unit or a DECT telephone.

Technical Data

Power consumption	1.5 W
Frequency range	1880 ... 1900 MHz
Ambient temperature	0 °C ... 40 °C
Mounting	wall mounting (inside)
Weight	approx. 200 g
Dimensions	W: 150 mm H: 160 mm D: 36 mm (including antenna)

Alimentation livrée séparement

Features

- 1 repeater for up to 2 concurrent speech channels including power supply unit

Accessories

C-ALIM C-WRFP Alimentation pour balise répétitrice

790D14A

Programming unit for DECT repeater



For DECT repeater configuration. The allocation of the system numbers (ARI) of the central control unit and the ID number of the accompanying DECT base station is carried out via a configuration tool. Connection to PC serial interface card (RS232).

As an alternative, the DECT repeater can be configured by using a DECT telephone.

Programming unit including adapter and software

Features

- 1 programming unit for configuration of the DECT repeater

790D500 DECT telephone series D5, Basic



Robust DECT terminal device for use in care facilities. Impact-resistant housing with all-round rubber seal and antimicrobial surface. Resistant to disinfectants and dust and splash-proof (protection rating IP65), optimized for tough, everyday work. Features long talk and standby times. As a mobile device that conforms to the DECT/GAP standard, it can be used as a cordless telephone and, when connected to the nurse call system, is able to transmit data signals from system messages (calls, alarms, technical messages, and faults). In-coming messages are shown on the high-quality color display and a tone is emitted according to the predefined priority. Also includes a vibrator to alert the user to messages in any situation. Memory for up to 10 messages, which can be retrieved and deleted. Fitted with a 7-line illuminated color display, numerical and function keys, plus a fixing clip and a high-quality Li-Ion battery. Extremely simple menu navigation thanks to intuitive operation in 13 different local languages via the function keys. Large capacity address book with up to 200 entries (1000 numbers). Can be used as a cord-less telephone with an optional set of headphones (with microphone) or in handsfree mode via the built-in loud-speaker.

Features

- DECT telephone incl. battery and clip
- Impact-resistant housing
- Headphone port
- Auxiliary loudspeaker
- 7-line color display
- Keypad and control keys
- Memory for 10 text messages (32 characters each)
- Address book (200 entries with 1000 numbers)
- Call list
- 13 menu languages
- Vibration device
- Different call signals
- Approvals/certifications: TBR6(DECT RF), TBR22(GAP), EMC ETS300329, CE

Technical Data

Frequency range	1880 ... 1900 MHz
Screen diagonal	4.5 cm
Weight	approx. 0.14 kg (incl.battery)
Dimensions	W: 53 mm H: 152 mm D: 27 mm

The service life of a battery depends on how often the battery is charged (max. approx. 500 charge cycles). At 2 charges per day, this means approx. 12 months. To maximize the battery life, the battery must always be fully charged. Do not start charging until the battery display is nearly empty (approx. 20 %). If the standby time becomes too short, the battery should be replaced.

Accessories

790D501 Battery for DECT telephone series D5
790D503 Leather case for DECT telephone series D5
790D510 Charging cradle for DECT telephone series D5

790D520 DECT telephone series D5, Alarm



As part no. 790D500, with additional alarm button and enhanced memory for up to 20 text messages (> 150 characters). A pre-programmed number is automatically dialed when the alarm button is activated. Ready to display messages in different colors and with special symbols (planning for future firmware in the central control unit, functional support for the nurse call system required).

Features

- DECT telephone incl. battery and clip
- Impact-resistant housing
- Headphone port
- Auxiliary loudspeaker
- 7-line color display
- Keypad and control keys
- Memory for 10 text messages (32 characters each)
- Address book (200 entries with 1000 numbers)
- Call list
- 13 menu languages
- Vibration device
- Different call signals
- Alarm button
- Approvals/certifications: TBR6(DECT RF), TBR22(GAP), EMC ETS300329, CE

Technical Data

Frequency range	1880 ... 1900 MHz
Screen diagonal	4.5 cm
Weight	approx. 0.14 kg
Dimensions	W: 53 mm H: 152 mm D: 27 mm

Accessories

790D501 Battery for DECT telephone series D5
790D503 Leather case for DECT telephone series D5
790D510 Charging cradle for DECT telephone series D5

790D510 Charging cradle for DECT telephone series D5



For charging the DECT telephone series D5, fitted with high-quality charging contacts and therefore suitable for long-term use. The charging electronics are specially designed for the batteries in this device series: continuous monitoring of the battery temperature during charging optimizes battery life. The charging process is shown on the DECT telephone display.

Single charging cradle, plug-in power supply.

790D503 Leather case for DECT telephone series D5



Leather case with viewing window to protect the DECT telephone series D5 from damage and dirt. The DECT telephone series D5 must be removed from the leather case for charging.



790D501 Battery for DECT telephone series D5



Battery to replace the original battery in the DECT telephone series D5.

The service life of a battery depends on how often the battery is charged (max. approx. 500 charge cycles). At 2 charges per day, this means approx. 12 months. To maximize the battery life, the battery must always be fully charged. Do not start charging until the battery display is nearly empty (e.g. 20%). If the standby time becomes too short, the battery should be replaced.

790D600 DECT telephone series D6, Office



DECT device ready for everyday office use, with long talk and standby times. As a mobile device that conforms to the DECT/GAP standard, it can be used as a cordless telephone; when connected to the nurse call system, it can be used to receive system messages (message memory for up to 10 messages). Includes a vibration device to alert the user to calls in any situation. It also has an illuminated color display, numerical and function keys, and a high-quality Li-Ion battery. Extremely simple menu navigation thanks to intuitive operation in 12 different local languages via the function keys. A large address book with up to 200 entries (1000 telephone numbers) is provided. Cordless telephone conversations via an optional headset (with microphone).

Features

- DECT telephone incl. battery
- Headphone port
- Color display
- Keypad and control keys
- Memory for 10 text messages (32 characters each)
- Address book (200 entries with 1000 numbers)
- Call list
- 12 menu languages
- Vibration device
- Different call signals
- TBR6(DECT RF), TBR22(GAP), EMC ETS300329, CE

Technical Data

Frequency range	1880 ... 1900 MHz
Screen diagonal	4.5 cm
Weight	approx. 0.11 kg (incl.battery)
Dimensions	W: 48 mm H: 146 mm D: 19 mm

The service life of a battery depends on how often the battery is charged (max. approx. 500 charge cycles). At 2 charges per day, this means approx. 12 months. To maximize the battery life, the battery must always be fully charged. Do not start charging until the battery display is nearly empty (approx. 20 %). If the standby time becomes too short, the battery should be replaced.

790D610 Charging cradle for DECT telephone series D6



For charging the DECT telephone series D6, fitted with high-quality charging contacts and therefore suitable for long-term use. The charging electronics are specially designed for the batteries in this device series: continuous monitoring of the battery temperature during charging optimizes battery life. The charging process is shown on the DECT telephone display.

790D601 Battery for DECT telephone series D6



Battery to replace the original battery in the DECT telephone series D6.

The service life of a battery depends on how often the battery is charged (max. approx. 500 charge cycles). At 2 charges per day, this means approx. 12 months. To maximize the battery life, the battery must always be fully charged. Do not start charging until the battery display is nearly empty (e.g. 20%). If the standby time becomes too short, the battery should be replaced.

790D400 DECT telephone "Office"



Cordless device used as a mobile telephone in accordance with the DECT/GAP standard for transmitting speech and data signals. The mobile unit is operated and configured via keyboard. Incoming text messages (during calls as well) are indicated on the backlit 36-character display and are subsequently stored within the system. The terminal device is charged in a charging cradle. Equipped with 4-line illuminated display, number and function keys, integrated lobes for belt clip, battery and integrated antenna.

Technical Data

Power supply	Battery: 3.6 V DC NiMH, 650 mAH
Frequency range	1880 ... 1900 MHz
Ambient temperature	0 °C ... 40 °C
Type of protection	IP 64
Weight	approx. 121 g (including battery)
Approval	TBR6(DECT RF), TBR22(GAP), EMC ETS 300329, CE
Dimensions	W: 48 mm H: 143 mm D: 26 mm (including antenna)

Scope of delivery without charging unit!

Features

- 1 DECT mobile device with battery
- Headphone connection
- 3-line display
- Keyboard
- Side control buttons and integrated transmitting/ receiving antenna

- Menu navigation (German):
- 14 text messages
- 40 telephone book entries
- 2 different user profiles (5 volume levels, 9 call sounds + on/off for each, automatic call answering, etc.)
- Microphone deactivation
- Keyboard lock (manual)
- Battery charge indicator

790D410 Single charging cradle for DECT telephone 790D4xx



Charging cradle for charging a mobile device. The charging electronics are specially tailored to the batteries of the mobile device. The charging capacity is shown on the terminal unit display during the charging process. Charging time: max. 4h

Single charging cradle, wall power supply

790D403 Leather case for DECT telephone 790D4xx



Leather case to protect against damage and dirt. The leather case has openings for keyboard and display.

Leather case incl. retaining clip

790D301 Spare battery for DECT telephones 790D3xx and 790D4xx



Spare battery as a replacement for the original battery in the mobile device.

The service life of a battery depends on how often the battery is charged (max. approx. 500 charge cycles). At 2 charges per day, this means approx. 12 months. To maximize the battery life, the battery must always be fully charged. Do not start charging until the battery display is nearly empty (approx. 20 %). If the standby time becomes too short, the battery should be replaced.

Notes



Media solutions

TV solutions 150-155
Clino Media 156-157
Clino Vision 158

79691N2 LCD TV-set 22HFL437XD



Stereo TFT TV with a screen diagonal of 56 cm (16:9 format), adapted to nursing facilities with functions like "volume limit", "setup menu lock", " TV key lock". Simple transfer of programming settings to other TV devices via USB memory stick. Integrated clock and additional connection options such as infrared circuit.
Equipped with an active TFT matrix with digital 2D comb filter, Smart-Picture and Crystal Clear as well as other electronics for image enhancement such as digital noise reduction, color improvement, automatic skin color correction and Pixel Plus HD. High-quality, anti-glare display with an image viewing angle of 170° (H) and 160° (V).
Designed with various connection options including SCART, HDMI and S-VHS for future enhancements. Configuration via a setup remote control unit. Transmission of the stereo dual channel sound via integrated speakers or call system terminal device (only mono available here). Control of the TV device via the call system in connection with the TV control unit. Mounting with wall or ceiling bracket.

Features

- Euro-AV/SCART 2 connections
- HDMI 4 connections
- No VGA connection

Technical Data

Rated voltage	240 V AC
Rated frequency	50 ... 60 Hz
Power consumption	50 W (during operation)
Power consumption standby	< 0.3 W
Resolution	1366 x 768
Display resolution	16:9, widescreen
Screen diagonal	56 cm
Contrast	150k:1
Luminance	300 cd/mm²
Ambient temperature	5 °C ... 40 °C
Color	black
Weight	approx. 5.5 kg (incl. bracket)
Dimensions	W: 541 mm H: 376 mm D: 68 mm (w/o stand) W: 541 mm H: 418 mm D: 150 mm (with stand) W: 100 mm H: 100 mm (VESA)

Mains cable
Table base
Remote control with batteries

Accessories

76961LF LCD/TFT wall bracket VFW 326

79691N3 LCD TV-set 22HFL437XD



As 79691N1, but with a screen diagonal of 66 cm with integrated clock and additional connection options such as infrared circuit.

Other image enhancement functions such as digital noise reduction, color improvement, automatic skin color correction and Pixel Plus HD.

Features

- Euro-AV/SCART 2 connections
- HDMI 4 connections
- No VGA connection

Technical Data

Rated voltage	240 V AC
Rated frequency	50 ... 60 Hz
Power consumption	95 W (during operation)
Power consumption standby	< 0.3 W
Resolution	1366 x 768
Display resolution	16:9, widescreen
Screen diagonal	66 cm
Contrast	150k:1
Luminance	400 cd/mm²
Ambient temperature	5 °C ... 40 °C
Color	black
Weight	approx. 8.4 kg (incl. bracket)
Dimensions	W: 672 mm H: 459 mm D: 77 mm (w/o stand) W: 672 mm H: 520 mm D: 220 mm (with stand) W: 200 mm H: 100 mm (VESA)

Mains cable
Table base
Remote control with batteries

Accessories

79691NA LCD/PLASMA wall bracket VFW 332

79691N4 LCD TV-set 22HFL437XD



As 79691N1, but with a screen diagonal of 81 cm with integrated clock and additional connection options such as infrared circuit.

Other image enhancement functions such as digital noise reduction, color improvement, automatic skin color correction and Pixel Plus HD.

Technical Data

Rated voltage	240 V AC
Rated frequency	50 ... 60 Hz
Power consumption	105 W (during operation)
Power consumption standby	< 0.3 W
Resolution	1366 x 768
Display resolution	16:9, widescreen
Screen diagonal	81 cm
Contrast	150k:1
Luminance	450 cd/mm²
Ambient temperature	5 °C ... 40 °C
Color	black
Weight	approx. 11.6 kg (incl. bracket)
Dimensions	W: 800 mm H: 535 mm D: 81 mm (w/o stand) W: 800 mm H: 592 mm D: 220 mm (with stand) W: 200 mm H: 200 mm (VESA)

Features

- Euro-AV/SCART 2 connections
- HDMI 4 connections
- No VGA connection

Mains cable
Table base
Remote control with batteries

Accessories

76961NA VESA TV wall bracket VFW 332
76961NB Adapter for VESA TV wall bracket VFW 332

79691NF Service remote-control for TV set 79691Nx



Infrared service remote control to configure 79691N1/2/3/4 TV devices. Configuration on startup of TV programs/channels and for setting functions such as "display values", "sound values", "volume limit", "setup menu lock", "TV key lock". Simple transfer of programming settings to other TV devices via USB memory stick.

79691NA VESA TV wall bracket VFW 332



VESA TV wall bracket VFW 332 for TFT TV 79691N3/4 with 2 pivotal points as well as rotation and tilt options for optimum viewing angle. Neat routing of TV cables by using cable clamps.

Features

- Premounted LCD/TFT bracket
- Tilt and rotation functions
- Two pivotal points

79691NB Adaptor for VESA TV wall bracket VFW 332



Adapter for VESA TV wall bracket VFW 332, e.g. for TFT TV 79691N4, to allow flexible adaptation to different VESA sizes (e.g. 200 x 300).

79691L2 LCD TV set Connect 22



Design TFT TV with a screen diagonal of 56 cm (16:9 format). High-quality active TFT matrix with a viewing angle of 160° (H + V), equipped with digital comb filter and additional electronics for image enhancement. Designed with various connection options including SCART, HDMI and S-VHS for future enhancements. Also equipped with FM radio.

The device is configured via system remote control unit. Transmission of the stereo dual channel sound via integrated speakers or call system terminal device (only mono available here).

Control of the TV device via call system in connection with the TV control unit. Mounting with wall or ceiling bracket.

Features

- Image viewing angle 160°
- At least 250 memory presets
- Automatic and manual program search mode
- Display of program and program number
- Euro cable tuner, DVB-T tuner, DVB-C tuner, FM
- Color standard PAL, NTSC, SECAM
- TV standard: PAL I, B/G, D/K, SECAM B/G, D/K
- Input antenna analog, DVB-T
- Euro-AV/SCART 1 connections
- HDMI 2 connections
- Other connections: VGA, S-VHS, F-BAS

Technical Data

Rated voltage	230 V AC
Rated frequency	50 ... 60 Hz
Power consumption	60 W (during operation)
Power consumption standby	< 0.9 W
Display resolution	16:9, widescreen
Screen diagonal	56 cm
Contrast	1000:1
Luminance	300 cd/mm²
Ambient temperature	5 °C ... 35 °C
Color	silver
Weight	approx. 9100 g (incl. bracket)
Dimensions	W: 546 mm H: 394 mm D: 7.6 mm (w/o stand) W: 546 mm H: 450 mm D: 210 mm (with stand) W: 100 mm H: 100 mm (VESA)

incl. power cable

Accessories

79691LF LCD/TFT wall bracket VFW 326

79691L3 LCD TV-set Connect 26



As 79691L2, but with a screen diagonal of 66 cm.

Features

- Image viewing angle 160°
- At least 250 memory presets
- Automatic and manual program search mode
- Display of program and program number
- Euro cable tuner, DVB-T tuner, DVB-C tuner, FM
- Color standard PAL, NTSC, SECAM
- TV standard: PAL I, B/G, D/K, SECAM B/G, D/K
- Input antenna analog, DVB-T
- Euro-AV/SCART 1 connections
- HDMI 2 connections
- Other connections: VGA, S-VHS, F-BAS

Technical Data

Rated voltage	230 V AC
Rated frequency	50 ... 60 Hz
Power consumption	90 W (during operation)
Power consumption standby	< 0.9 W
Display resolution	16:9, widescreen
Screen diagonal	66 cm
Contrast	2000:1
Luminance	450 cd/mm²
Ambient temperature	5 °C ... 35 °C
Color	silver
Weight	approx. 10500 g (incl. bracket)
Dimensions	W: 687 mm H: 456 mm D: 9.4 mm (w/o stand) W: 686 mm H: 510 mm D: 220 mm (with stand) W: 100 mm H: 100 mm (VESA)

incl. power cable

Accessories

79691LF LCD/TFT wall bracket VFW 326

79691P1 Infrared remote control



Infrared remote control unit to start up TV by selecting channels and programs and by setting basic values for color, contrast, high pitches, low pitches and maximum volume.

79691LD Ceiling bracket for Xelos A20 LCD TV unit 52-80 cm



Variable cover holder (46-135 cm) for TFT TV device with a screen diagonal up to 23". Set with a fastening console for slanted ceilings, adjustable extension pipe as well as a rotation and tilt unit and with an adapter for a single TV set. With cable channel system for concealed cable routing.

Technical Data

Color	platinum
Max. weight TV	12 kg
Dimensions	W: 100 mm D: 100 mm (VESA) H: 46 - 74 cm

Accessories

79691LA Adapter for LCD TV set

79691LE Ceiling bracket for Xelos A20 LCD TV unit 82-140 cm



Variable cover holder (77-135 cm) for TFT TV device with a screen diagonal from up to 23". Set with a fastening console for slanted ceilings, adjustable extension pipe as well as a rotation and tilt unit and with an adapter for a single TV set. With cable channel system for concealed cable routing.

Technical Data

Color	Platinum
Max. weight TV	12 kg
Dimensions	W: 100 mm D: 100 mm (VESA) H: 77 - 135 cm

Accessories

79691LA Adapter for LCD TV set

79691LF VESA TV wall bracket VFW 326



VESA TV wall bracket VFW 326 for TFT TV 79691N1/2 and 79691L2/3 with 2 pivotal points as well as rotation and tilt options for optimum viewing angle. Neat routing of TV cables by using cable clamps.

TV accessories

79813C1 TV control module



Interface for controlling a TV unit in the patient's room. Control commands are transmitted from an allocated bed module or wall electronics. These control commands are converted into the control instructions of the TV units. The TV audio signals are electronically separated and adjusted to the audio level of the bed module / wall electronics.

Technical Data

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

Compatibility list for TV sets on request

Accessories

88912B3 Cover plate for TV control module 79813C1
89735S2 Control cable for TV sets with Euro-AV / 1 m
89735S4 Control cable for TV sets with Euro-AV / 2 m

88912B3 Cover plate white with TV symbol



Accessories

88914A3 Mounting frame for cover plate (single)

89735S5 Control cable for TV sets with 3.5 mm plug / 1 m



Technical Data

Cable length	1 m

89735S6 Control cable for TV sets with 3.5 mm plug / 2 m



Technical Data

Cable length	2 m

79813D1 **TV control RC5 for TV series HFL43xx**



Interface incl. control cable for wire-based activation of a TV set HFL43xx in the patient`s room room. Control commands are transmitted to the TV control module from up to 3 different bed modules. Control commands are converted into control instructions for the TV set HFL43xx. The acoustic signals from the TV set are electrically isolated and adapted to the audio level of the bed module.

Option of modifying the control instructions via a separate programming unit (part number on request).

TV control module RC5 incl. control cable for TV set HFL43xx together with filler panel and frame

79813D2 **TV control contact for TV series HFL43xx**



Interface incl. control cable for wire-based activation of a TV set HFL43xx in the patient´s room. Control commands are transmitted to the TV control module from up to 3 different wall electronics. Control commands are converted into control instructions for the TV set HFL43xx. The acoustic signals from the TV set are electrically isolated and adapted to the audio level of the wall electronics.

Option of modifying the control instructions via a separate programming unit (part number on request).

TV control module contact incl. control cable for TV set HFL43xx together with filler panel and frame

Clino Media

Today more than ever before, healthcare facilities have to meet the care recipients' rising standards through the provision of additional services. The selection of hospital or nursing facility is increasingly based on the individual care recipient's needs. In addition to medical and nursing care, the services offered are thus gaining more and more in importance. Television, radio, video-on-demand and internet access are significant service components and provide an economic way of improving the facility's image.

For patients, an individual program selection and open access to various communication options stands for higher comfort and individuality in the sick room. The wide spectrum of entertainment also helps alleviate boredom, adds to the patient's sense of well-being and thus supports the recovery process.

Clino Media provides impressive features and technology: The closed housing has no ventilation slots and is thus especially easy to disinfect. With a screen diagonal of 15 inches, the device only weighs 2,950 grams and can be easily fastened to the bedside table. The touch screen offers fully flexible modes of application and operation by a display customized to the type of patient and/or the related age group. Besides extensive TV/AUX functions (PAL / SECAM, freely editable program table, video on demand (Pay TV), DVD player, game console and camera), Clino Media allows for the integration of advertising and information functions such as event tips or the integration of advertising banners. Moreover, the patient can make purchases in the hospital shop online or order books, DVDs and even a meal. The chat and phone functions can be used for exchange with patients, the nursing staff or the family.

Doctors and the nursing staff benefit from Clino Media, too: easy service, self-explanatory operating instructions and central programming facilitate the working processes in the ward. Patients at ease and a calm atmosphere in the sick rooms relieve the workload of both nursing and technical staff by less effort required for explanations and maintenance. The system's user-friendliness also applies here. The terminal is plug & play, thus allowing even untrained staff to replace components. Once connected, the device installs automatically.

In addition to this, medical staff have access password-protected medical data and the patient file securely via the terminals. As a thin client, Clino Media permits access to the ward PC and HIS databases as well as to the display of X-ray images. Other application options include inventory management, building automation control and centralized or decentralized invoicing of healthcare services.

Due to its modular setup, the Clino Media system can also accommodate future technologies so as to guarantee long-term investment protection. The new all-in-one device not only pays off in the long run, but in daily use as well: it only consumes 16 Watts.

The features at a glance:

- TV
- AUX
- Radio
- HIS
- Advertising and information function
- Chat
- Shop
- Telephone
- Internet
- Thin client
- Accounting

Various bracket variants are available. Integration into existing invoicing systems is generally possible. Any integration required is made on T&M basis. As an alternative to central accounting system, accounting can also be carried out locally at the terminal via a prepaid card (standalone version).

The necessary hardware and software infrastructure will be supplied on request. Further information is however required.

Technical prerequisites for the offered terminals:

- 230 V
- a/b telephone line (does not apply to IP telephony)
- LAN connection (CAT 5 - 7) (alternatively, WLAN or DSL via a/b telephone line)
- TV connection (coax, 75 Ohms) (does not apply, if IPTV is used)
- A suitable infrastructure on site for access to the internet / applications.

The following applications are available/included in the quotation:
- TV / radio
- Internet / intranet
- Telephone

Any existing Citrix client (or Microsoft Remote Desktop will ensure access to the existing HIS, for example) Integration will be charged on T&M basis.

Nurse call
The nurse call function (Ackermann communication system) can be integrated on a project specific basis. The telephone connection is available (included in the package). Depending on the respective project, the connection for combined calls is provided and a suitable mounting is manufactured. The activation of a simple pear push-button usually suffices for the voice call function since the duplex operation is already available with the existing telephone receiver.

Contact us if you would like us to develop a customized Clino Media solution based on your requirements. You can find more information about Clino Media products in our Clino Media brochure.

Today more than ever before, hospitals, clinics and nursing facilities have to meet patients' rising standards through the provision of additional services. As a supplementary service, the new Clino Vision enables patients to watch their private room TV at the bedside and thus also provides an economical way of improving the facility's image. For patients the individual selection of programs signifies more comfort and individuality in the sick room. The usual conflicts when trying to decide on a program are avoided. In this way, Clino Vision contributes to a pleasant, relaxed atmosphere in the room to the benefit of all.

Competition is growing and so are the expectations with regard to comfort, service and security. The new Clino Vision unites various functions in one single device:

- TV device individually adjustable to all reclining positions
- Optional: Call function in compliance with VDE (VDE 0834) integrated in the device*
- Selection of up to 999 TV, video, radio programs
- Television at the bedside with individual volume control with and without headphones

* Only in combination with Ackermann systems.

The new handy and compact Clino Vision TV set has an impressive design, both functional and appealing. Its 8-inch screen diagonal provides the perfect size for use right at the patient's bed. Its ball joint and swivel arm makes the device so flexible that patients can watch TV comfortably in any position. Thus Clino Vision is also suitable for patients with special medical indications. The integrated call and speech functions provide additional comfort.

The individual selection of entertainment programs at the sick bed meets patients' individual requirements. A comfortable reclining position is not only a matter of comfort, but often supports the recovery process. The new Clino Vision "private" television meets demanding patient standards.

Just like interior design and furnishings, the possibility of watching private television at the bedside adds to a facility's good image. The design of the new Clino Vision also meets the high demands of modern hospitals, clinics and nursing facilities. Not only comfort and image aspects play a role, but private television also helps to avoid conflicts between patients. Clino Vision is simply an integral part of a pleasant ambience for an increased sense of well-being.

The nursing staff also benefits from Clino Vision: Patients at ease and a calm atmosphere in the sick rooms relieve the workload of both nursing and technical staff by less effort required for explanations and maintenance.

Contact us if you would like us to develop a customized Clino Vision solution based on your requirements.



Standalone systems

System description 160
Systems 161-162
Additional components 163-164

General

Nurse call systems present an essential factor in washrooms of public buildings and offer disabled people the chance to call for help. Therefore a nurse call system must be installed in such rooms. An initiated call is signaled for example to the doorman or central control employees in this building both optically and acoustically. Thus support for people in need of help is guaranteed.

The alarm kit for public washrooms is the ideal solution for these situations. As a complete system with call switch, cancel unit and control electronics, as well as a power supply, these components are perfectly tailored to each other. The installation of the alarm kit for public washrooms is very easy and can be carried out very quickly.

Functional description

A call that is actuated by a disabled person using the call switch is indicated by a flashing reassurance lamp and by the corridor lamp. The duty room unit, which is installed in the nurse` station, porter's room or any other common room, optically indicates the call by means of a red flashing control lamp combined with an acoustic signal (buzzing). The call can be acknowledged at the duty room unit, with the effect that the acoustic signal is temporary withheld. The call can be reset only in the washroom by actuation of the cancel push-button. If the call is not cancelled, acoustic signaling is automatically reactivated.

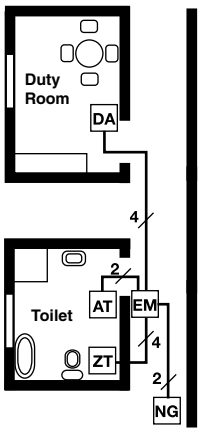
		76910C1 Alarm kit for public washrooms	**76910D1** System Compact CL
Control contact for external detection systems		only in connection with relay module	**1** standard
Sounder with low-profile base (766226)		**1**	**-**
Relay module for actuating external components (72611D) max. 5 A contact load.		**2**	**-**
Parallel duty room unit (73640J2 / 88881P3)		**3**	**1**
Pull Call switch (70045A3 / 88880A3)		**7**	**1**
Additional zone indicator lamp (72515A7)		**1**	**-**

List of all equipment for the Alarm Kit for Public Washrooms and System Compact CL

76910D1

System compact CL



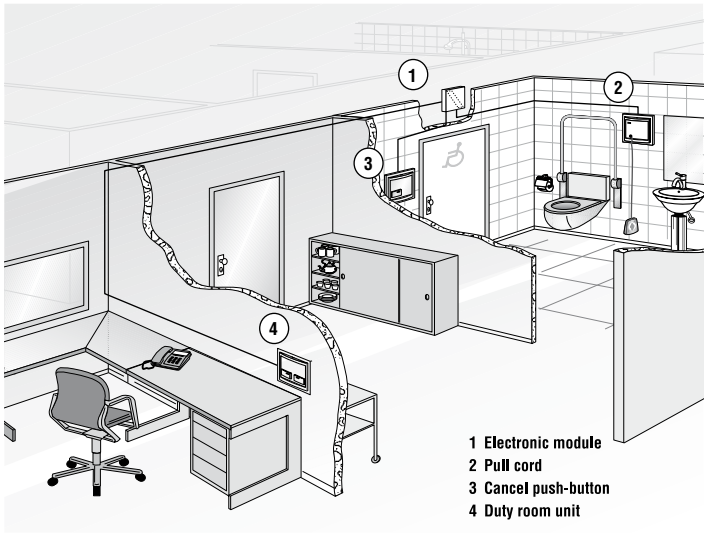


The System Compact CL consists of:
- 1 call switch with red LED reassurance lamp and 2 m PVC cord, including cover plate, cover plate frames and sealing kit
- 1 cancel push-button and LED reminder lamp -green-, including cover plate and cover plate frames
- 1 duty room unit with LED indicator lamp -red-, sound generator and acknowledgement button, including cover plate and cover plate frames
- 1 electronic module CL with integrated corridor lamp with LED technology and control electronics as well as a relay contact for controlling the building management system
- 1 single-phase safety power supply with low-voltage supply fuse
- 1 operating instructions

Technical Data

Rated voltage	230 V AC
Rated frequency	50 ... 60 Hz
Rated current	0.5 A
Operating voltage	24 V DC
Operating temperature	Power supply max. 50 °C
Color	white, similar to RAL 9016 (cover plate / cover frame)
Dimensions	W: 71 mm H: 10 mm D: 71 mm (electronic modules) W: 86 mm H: 41 mm D: 22 mm (power suplly) D: 25 mm (installation depth electronic module)

Unlike the alarm kit for public washrooms (Part-No. 76910C1), the CL series is not expandable!

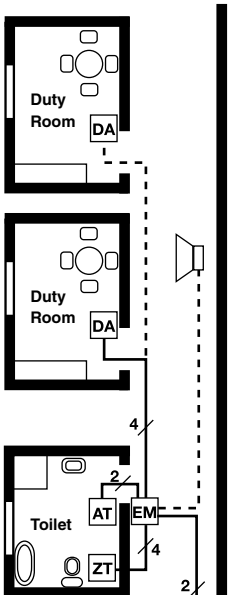


Application example: System Compact CL in a public washroom for disabled persons

76910C1 **Alarm kit for public washrooms**



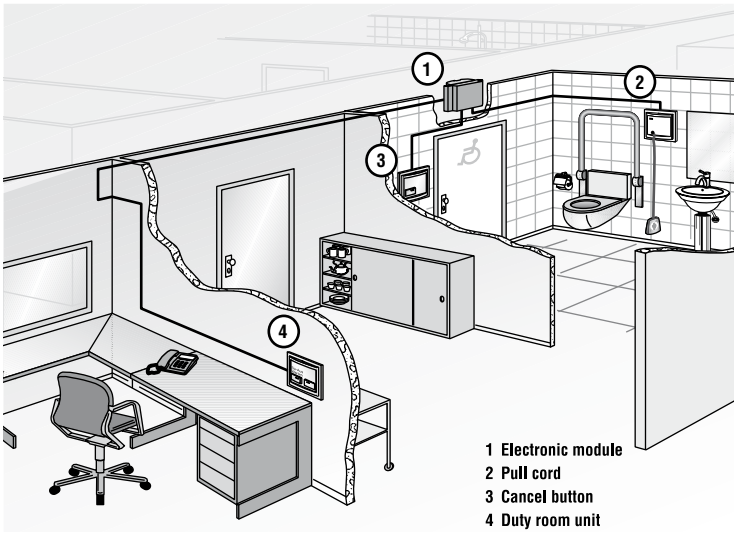
Alarm kit for public washrooms consisting of:
- 1call switch with red LED reassurance lamp and 2 m PVC cord, including cover plate, cover plate frames and sealing kit
- 1 cancel push-button and LED reminder lamp -green-, including cover plate and cover plate frames
- 1 duty room unit with LED indicator lamp -red-, sound generator and - acknowledgement button, including cover plate and cover plate frames
- 1 electronic module with integrated corridor lamp, bulb lamp and system electronics, incl. installation bracket and flush mounting combination box
- 1 single-phase safety power supply with low-voltage supply fuse



Technical Data

Rated voltage	230 V AC
Rated frequency	50 ... 60 Hz
Rated current	1 A
Operating voltage	24 V DC
Color	white, similar to RAL 9016 (cover plate / cover frame) gray, similar to RAL 7040 (plastic base)

The system can be extended, so that calls can be indicated at different locations. For additional extensions such as the call switch 70045A3, please refer to the section Clino System 99 / Room Components.



Application example: Alarm Kit for public washrooms (with accessories)

72515A7 Zone indicator lamp (1 lamp)



Zone indicator lamp with 1 neutral lamp cover with 2 lamp sections.

Technical Data

Mounting	surface mounting
Type of protection	IP20
Material	PC + ABS - FR lamp cover PC
Color	gray, similar to RAL 7040 (plastic base) white, translucent (lamp cover)
Dimensions	W: 158 mm H: 110 mm D: 87 mm

73640J2 Parallel duty room unit



The parallel duty room unit serves as an extension module for the alarm kit for public washrooms.

Accessories

88881P3 Cover plate for parallel duty room unit

88881P3 Cover plate for parallel duty room unit



1 cancel push-button (white) with symbol

Technical Data

Color	white, similar to RAL 9016

Accessories

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

766226 Sounder with low-profile base, white



VdS **Approval: VdS**

The alarm signalling device offers a selection of 32 acoustic signals including the DIN German standard as well as additional country-specific acoustic signals.

The configuration is carried out via a five-pin DIL-switch. Up to two different acoustic signals can be activated.

Technical Data

Operating voltage	9 ... 28 V DC 0.0 ... 0.0
Alarm current @ 12 V DC	approx. 3 mA
Alarm current @ 24 V DC	approx. 5 mA
Starting current	approx. 32 mA
Sound level @ 12 V DC	(at DIN-Tone)
Sound level @ 24 V DC	103 dB(A)
Ambient temperature	-25 °C ... 70 °C
Type of protection	IP54 and IP65 with 766238
Housing	ABS V0
Color	white, similar to RAL 9010
Dimensions	Ø: 93 mm H: 63 mm Ø: 93 mm H: 91 mm (incl. base part.no. 766237/ 766238)

Not suitable for using outside or in humid environments.

Please therefore use the optional bases with side cable entry (766238).

Features

- Flat design
- Suitable for 12 and 24 V DC operating voltage
- Low amount of alarm current
- Volume at the unit adjustable

Accessories

766238 IP 65 base, white

72611D — Relay module for actuating external components



Technical Data

Contact load	24 V / 5 A

Accessories

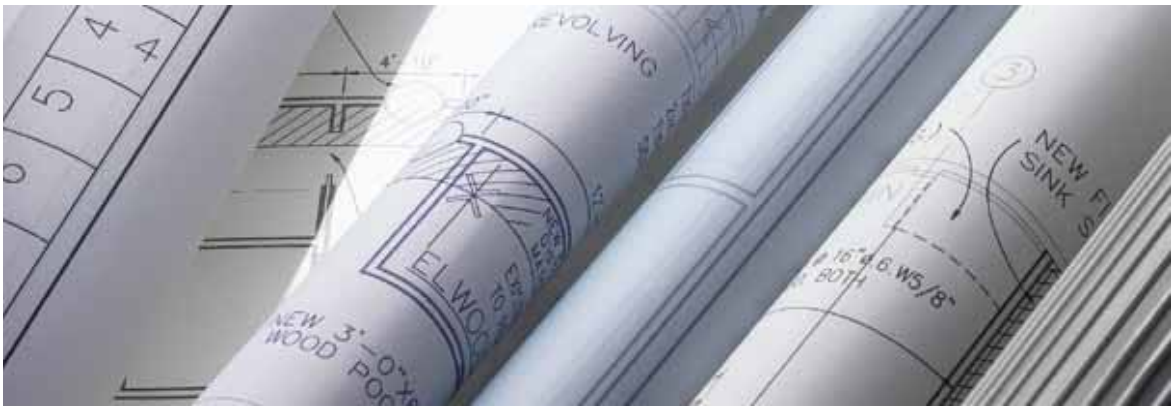
18972AV Flush mount combination box with extruded plaster cover
89899A3 Cover plate for relay module

89899A3 — Cover plate for relay module

Single dummy cover plate with 2 bore holes.

Technical Data

Color	white, similar to RAL 9016
Dimensions	W: 90 mm H: 90 mm



Appendix Terms and Conditions 173-174

Part Number Index

Part No.	Page
18971A	103
18971B	103
583486	141
70005BZ	92
70006D	81
70007A	92
70007B	92
70045A3	80
71008C3	77
71048B	78
71052D3	78
71185D2	109
71185E2	109
71186GV	102
72515A7	163
72515Z1	96
72515Z2	97
72555B1	64
72555C1	64
72556D1	62
72556D2	62
72556L1	62
72556S1	62
72556S2	62
72556T1	63
72556T2	63
72557B1	64
72557B3	64
72557BJ	111
72557C1	65
72557C3	65
72557S1	65
72557Z1	65
72557ZJ	65
72569DL	63
72569Z2	63
72569Z4	63
72570P1	58
72570Z1	59
72570Z2	59
72571P1	59
72571Z1	59
72571Z2	59
72574M1	96
72574Z2	96
72575N1	56
72575N2	56
72575P1	57
72575P2	57
72575Z1	58
72575Z2	57
72575Z3	58
72581B1	26
72582Z1	27
72583A1	48
72583Z1	48
72585C	60
72611D	164
72631A1	70
72631B1	70
72631C1	71
72631D1	70
72639A	28
72641A2	29
72641Z1	29
72642C	27
72649B1	35
72649BA	35
72649BE	35
72649BG	35
72649BK	35
72661C	26
72661D	26
72700A1	22
72700B1	23
72700C1	24
72700D1	24
72700E1	25
72700Z1	25
72700Z2	25
72700Z3	25
73022A3	80
73070A	49
73073D3	76
73073E3	76
73073F3	77
73073G3	78
73073Z1	84
73075A	79
73075B	79
73075D	79
73300A	92
73310F1	91
73310G1	91
73310J1	91
73312A1	93
73312B1	93
73640J2	163
73642B3	53
73642C	82
73642D	82
73642E	83
74096D	69
74131B1	69
74133A1	69
74137A1	71
74137Z2	72
74137Z3	72
74137Z6	72
74141B1	88
74141B3	88
74141B4	88
74141B7	89
74141C1	88
74141C3	88
74141C4	89
74151B1	89
74153B1	89
74153B3	89
74153B4	89
74153B7	89
74153C1	89
74153C3	89
74153C4	89
74153C7	90
74154A1	86
74154B4	85
74154C1	86
74154C4	86
74154C7	87
74154D4	86
74154Z1	87
74155C3	87
74174A1	68
74174B1	68
74174C1	68
74174D1	68
74187A1	73
74188A1	67
74188T1	27
74189A	83
74189L	84
74190A1	74
74190A2	73
74199A	84
74422A1N	49
74656A1	95
74656B1	95
74656C1	95
74657A1	95
74657C1	95
74910C5	51
74911B5	51
74913A1	52
74913AA	52
74913AB	52
74913BA	110
74913BB	110
74913BJ	110
7608903	34
7608944	100
76089AC	34
766226	163
76910C1	162
76910D1	161
76919A1	55
76919B1	55
76919C1	55
76919J1	108
76919JP	109
76919T1	51
76920B1	55
76921B1	50
76921BR	54
790D001	140
790D130	142
790D131	142
790D140	142
790D14A	143
790D150	138
790D155	139
790D156	139
790D157	141
790D159	141
790D15B	138
790D160	139
790D170	140
790D175	140
790D177	140
790D180	141
790D185	141
790D301	147
790D400	146
790D403	147
790D410	146
790D500	144

Part Number Index

Part No.	Page
790D501	145
790D503	145
790D510	145
790D520	144
790D600	145
790D601	146
790D610	146
790P031	120
790P033	120
790P050	122
790P051	122
790P052	122
790P053	122
790P054	122
790P100	120
790P103	120
790P120	121
790P121	121
790P122	121
790P124	121
790P137	120
790P400	124
790P401	125
790P402	125
790P403	126
790P404	126
790P405	127
790P406	127
790P407	127
790P410	128
790P411	128
790P412	124
790P413	129
790P420	130
790P421	130
790P422	130
790P423	130
790P424	131
790P425	131
790P426	131
790P427	131
790P428	131
790P429	132
79691L2	152
79691L3	152
79691LD	153
79691LE	153
79691LF	153
79691N2	150
79691N3	150
79691N4	151
79691NA	151
79691NB	151
79691NF	151
79691P1	153
79809A1	44
79810E	44
79813C1	154
79813D1	155
79813D2	155
79821A	45
79822A	43
79823A1	45
79823B1	46
79823C1	47
79823C2	47
79823F1	46
79823Z1	45
79823Z2	46
82900AA	100
82900AB	100
82950A1	100
82950A2	100
82950A3	100
82950B1	101
83WE120	40
83WE130	41
83WE140	41
83WE150	41
83WE160	42
83WE170	42
83WE180	42
83WE190	43
83WE200	42
88160A	83
88860FV	55
88880A3	81
88880C3	81
88880D3	84
88881D3	80
88881G3	80
88881H3	82
88881H4	78
88881J3	76
88881K3	77
88881L3	76
88881M3	83
88881P3	163
88882A3	82
88882B3	83
88882P3	53
88883CA	60
88893AV	60
88894AL	101
88894BL	101
88894CL	101
88894DL	101
88910A3	28
88910B3	77
88910N3	74
88911J3	49
88912B3	154
88912D3	79
88914A3	74
88914B3	75
88914C3	75
88915A3	102
88915C3	102
88915D3	103
89450B	109
89603C1	96
89733F1	61
89734AH	98
89734AJ	98
89734J1	99
89734J2	99
89734L1	99
89734L2	99
89734P1	98
89734PA	71
89734R1	98
89734R2	98
89735S5	154
89735S6	154
89760B	75
89760BZ	75
89760C	75
89899A3	164
89954C6	32
89954C6E	33
89954C7	32
89954C7E	33
89954C8	33
89954C8E	33
89954C9	32
89954CA	34
89954M1	30
89954M2	30
89954M3	31
89954MA	31
89954MB	31
89954MC	31

Index

Keyword	Page
A	
Accessories (10 caps plus sealings)	132
Actuator unit AE230-2 (2 interlocking contacts 230 V AC)	70
Actuator unit AE230-2 free (2 floating contacts)	70
Actuator unit AE230-3 (3 contacts 230 V AC)	70
Actuator unit AE24-3 (3 contacts 24 V DC)	71
Adapter cable for EM 230	61
Adapter for name plate in conjunction with EM340	63
Adaptor for name plate xS2, RAL 9016	63
Adaptor for VESA TV wall bracket VFW 332	151
Additional Antenna - compact	120
Alarm kit for public washrooms	162
Audio ISDN Interface	26
Auto-release plug system	84
Auto-release plug system - A-coded	83
Auto-release plug system - L-coded	84
Auxiliary LF antenna (optional)	120
B	
Backbox for sensor push-button	109
Base station interface card (8)	139
Basic software online-system	128
Basic starter package	124
Battery for DECT telephone series D5	145
Battery for DECT telephone series D6	146
Bed module	67
Bed sensor	93
Bracelet (rubber) for transponder	131
Bracelet (velcro) for transponder	131
Bracelets for transp. "dementia"	131
Bracket for patient handset / terminal	69
C	
Cable fixing clip	69
Cable for input / output module	127
Call / cancel push-button	53
Call module with call push-button	77
Call module with push-button and 1 monitored socket	76
Call module with push-button and 2 monitored sockets	76
Call push-button	80
Call switch with pull cord and knob	80
Call unit with 2 diagnostic sockets	79
Call unit with call push-button and 1 monitored socket	79
Call unit with call push-button and 2 monitored sockets	79
Cancel module with ext. input	78
Cancel push-button - PR 1 -	82
Cancel push-button - PR 2 -	82
Cancel push-button -PR 1 / PR 2-	83
Card reader for PC workstation	43
Cat 5 Patch Cable, 1 m yellow (Ethernet)	141
Cavity wall backbox	103
Cavity wall connection board for bed module	68
Cavity wall connection board for room terminal	55
Ceiling bracket for Xelos A20 LCD TV unit 52-80 cm	153
Ceiling bracket for Xelos A20 LCD TV unit 82-140 cm	153
Ceiling mounting set	96
Central control unit Basic Clino Call DECTplus	138
Central control unit Clino Call DECTplus	138
Charging cradle for DECT telephone series D5	145
Charging cradle for DECT telephone series D6	146
CL Central Control Unit	39
Claw set for 10 call units	84
Clino Call DECTplus coupling	41
Configuration module - English	35
Configuration module - French	35
Configuration module - German	35
Configuration module - Italian	35
Configuration module - Spanish	35
Configuration tool of the communication system	40
Connecting cable open circuit current for bed sensor	93
Connection board EM 140 with bed databus, gray	59
Connection board EM 140 with bed databus, white	59
Connection board EM 140 without bed databus, gray	59
Connection board EM 140 without bed databus, white	59
Connection board for contact interface	29
Connection board for corridor lamps CL13x/14x, gray	63
Connection board for corridor lamps CL13x/14x, white	63
Connection board for direction lamp - white	96
Connection board for duty room interface - white	27
Connection board for duty room interface, white	48
Connection board for EM 340, silver	58
Connection board for EM 341, white	57
Connection cable - serial (spare part)	140
Connection cable for the Patient Handset Systevo Com	72
Contact interface	29
Control cable for TV sets with 3.5 mm plug / 1 m	154
Control cable for TV sets with 3.5 mm plug / 2 m	154
Converter POF-FO	26
Corridor databus splitter / repeater / terminator -active-	27
Corridor databus terminator -passive-	28
Corridor lamp CL 220 (red/green)	64
Corridor lamp CL 230 (red/white/green)	64
Corridor lamp CL141 (4 lamps)	63
Cover plate	28
Cover plate for auto-release plug system	74
Cover plate for auto-release plug system (74199A)	84

Index

Keyword	Page
Cover plate for call switch with pull cord	81
Cover plate for cancel module	78
Cover plate for databus connection unit	49
Cover plate for parallel duty room unit	163
Cover plate for pneumatic call push-button	81
Cover plate for relay module	164
Cover plate including microphone	78
Cover plate white for duty room unit	53
Cover plate white with TV symbol	154
Cover plate with 2 cancel push-buttons (green and yellow)	83
Cover plate with 3 lamp sections for EM 230	60
Cover plate with button - yellow	83
Cover plate with button -green-	82
Cover plate with call push-button - blue - for doctor call	80
Cover plate with call push-button - red	80
Cover plate with call unit with 2 diagnostic sockets	79
Cover plate with push-button (red)	77
Cover plate with push-button (red) and units with 1 socket	76
Cover plate with push-button (red) and units with 2 sockets	76
Cover plate with push-buttons - red and green	82
CPU card for central control unit 19"	139
D	
Databus connection unit for master station	49
DECT base station for humid environments	142
DECT base stations	142
DECT repeater	142
DECT telephone "Office"	146
DECT telephone series D5, Alarm	144
DECT telephone series D5, Basic	144
DECT telephone series D6, Office	145
DECT/Paging system connection via ESPA 4.4.4.	41
Desk top unit for room terminal	51
Direction lamp with 2 lamp cells	96
Display module for bed / corridor databus	51
Doctor call button replacement set (dummy)	55
Door communication interface BM99-TS	27
DSLAM 48 Port Annex A, Master Type	45
Dummy cover plate for room electronic module	60
Duty room interface (4 lamps), white	48
E	
ESPA driver for online system	129
F	
Field bus card (FBC) POF-POF for Systevo Control	25
Field bus card (FBC) system 95 for Systevo Control	24
Field bus card (FBC) system 99 for Systevo Control	24
Flush mounted installation box for room terminal 99 Protect	108
Flush-mounted backbox	103
Flush-mounted connection board for bed module	68
Flush-mounted connection board for room terminal	55
FO cable plug (black)	100
FO cable plug (blue)	100
G	
GBIC Module, Multimode Type	46
H	
Halogen-free system cable, 100 m bundle	98
Halogen-free system cable, 500 m cable drum	98
Handheld transmitter (single), 868MHz	91
Hanging Mount for Patient Handset Systevo Com	72
Hanging mount for pear- and multiple push button IP67	87
HCS Fiber optic cable, 150 m	98
Headphones with jack plug	75
Headphones with right-angle plug	75
Housing sm for power supply / UPS 5A	34
I	
Information display (double-sided) for ceiling mounting	95
Information display (single-sided) for ceiling mounting	95
Information display (single-sided) for wall mounting	95
Information display 3/5 - double-sided for ceiling mounting	95
Information display 3/5 - single-sided for wall mounting	95
Infrared remote control	153
Input / output module	127
Interfacing unit for microphone	78
IPC-driver for online system	128

Index

Keyword	Page
L	
Labeling set for zone indicator lamp, 35 mm (accessories)	96
Labelling set for zone indicator lamp, 50 mm (accessories)	97
LCD TV set Connect 22	152
LCD TV-set 22HFL437XD	150
LCD TV-set Connect 26	152
Leather case	122
Leather case for DECT telephone 790D4xx	147
Leather case for DECT telephone series D5	145
LED corridor lamp CL 340, silver	62
LED corridor lamp CL 341, white	62
LED lamp (green)	101
LED lamp (red)	101
LED lamp (transparent)	101
LED lamp (yellow)	101
License-Update BSP->Online	124
Lighting for name plate	62
Link cable for CPU card 790D155	141
Locator / receiver unit "Universal V IP64"	120
Locator / receiver unit "Universal V"	120
Locator unit	125
Locator unit slave	125
Loudspeaker	77
M	
Magnetic key	122
Master station	49
Mounting frame for cover plate (double)	75
Mounting frame for cover plate (single)	74
Mounting frame for cover plate (triple)	75
MSU connection board for bed module	68
Multimode fiber SC-LC Sx	46
Multiple push-button (NCC) 7-pin plug, 1 light button, 3 m	89
Multiple push-button (NCC) 7-pin plug, 2 light button, 3 m	89
Multiple push-button (NCC) 7-pin plug, 2 light buttons, 5 m	89
Multiple push-button (NCC) auto-release plug - A -, 3 m	89
Multiple push-button (NCC) auto-release plug - A -, 5 m	89
Multiple push-button (NCC) auto-release plug -L-, 3 m	89
Multiple push-button (NCC) auto-release plug -L-, 5 m	90
Multiple push-button (NCC) auto-release plug, 3 m	89
Multiple push-button (NCC) auto-release plug, 5 m	89
Multiple push-button 2+1 IP 67 (NC) 2.5 m	86
Multiple push-button 2+1 IP 67 (NC) 5 m	86
Multiple push-button 5+1 IP 67 (NC) 2.5 m	87

Keyword	Page
N	
Name plate CL400	65
Name plate for LED corridor lamp CL 341	62
Name plate for LED corridor lamp CL340	62
Name plate with corridor lamp CL 420 (red/green)	64
Name plate with corridor lamp CL 420A (red/green)	64
Name plate with corridor lamp CL 420J (red/green)	111
Name plate with corridor lamp CL 430 (red/green/white)	65
Name plate with corridor lamp CL 430A (red/green/white)	65
Noise level sensor	92
O	
Operating computer (without monitor)	36
Operating computer for system migration (without monitor)	37
P	
PABX-interface board (8 a/b)	140
PABX-interface board VoIP/SIP	140
PABX-interface card (16 a/b)	140
Paper for CL 4xx name plates	65
Parallel duty room unit	163
Patch panel 12 x CAT5 on LSA-plus	141
Patient Card for the Accounting System	45
Patient Handset Systevo Com with Telephone Function	71
Patient handset with speech	69
Patient-transponder pendant	121
Patient-transponder watch	121
Patient-transponder watch dummy	121
Pay Station for the Accounting System	44
Pear push-button (NCC) 7-pin plug, 3 m	88
Pear push-button (NCC) 7-pin plug, 5 m	88
Pear push-button (NCC) auto-release plug - A - , 5 m	89
Pear push-button (NCC) auto-release plug - A -, 3 m	88
Pear push-button (NCC) auto-release plug - L -, 3 m	89
Pear push-button (NCC) auto-release plug, 3 m	88
Pear push-button (NCC) auto-release plug, 5 m	88
Pear push-button IP 67 (NC) 2.5 m	85
Plastering cover for fm-connection box for room terminal 99 Protect	109
Pneumatic breath call unit (NCC) DIN-plug	92
Pneumatic call push-button	81
Pneumatic pear push-button (NCC) DIN plug, 1.9 m	92
POF patch cable	26
Power supply / UPS 230VAC-12VDC 2A	127
Power supply / UPS 230VAC-24VDC	32
Power Supply 24 V DC, in accordance with EN 60601-1-1	25
Programming unit for DECT repeater	143

Index

Keyword	Page
R	
Rack PC for distribution cabinet (19")	38
Receiver unit	126
Relay card - Locator / receiver unit "V"	120
Relay module for actuating external components	164
Relay module with buzzer unit for EM 340/341	58
Replacement battery for UPS 10A/15Ah	33
Replacement battery for UPS 20A/24Ah	33
Replacement battery for UPS 5A/7Ah	33
Replacement Housing for Patient Handset Systevo Com	72
RFID card manager basic incl. PC reader	42
RFID module with call and cancel push-button	52
RFID transponder card	52
RFID transponder chip	52
RFID-transponder chip "Reset"	110
RFID-transponder chip "Standard"	110
RJ21 – RJ21 Connectors Incl. Patchboard (24 RJ11 Ports)	45
RJ21 Telephone Connector to Open End	46
Room electronic module EM 140 (4 lamps) with bed databus	59
Room electronic module EM 140 (4 lamps) without bed databus	58
Room electronic module EM 230	60
Room electronic module EM 340 w/o bed databus, silver	56
Room electronic module EM 340 with bed databus, silver	57
Room electronic module EM 341 w/o bed databus, white	56
Room electronic module EM 341 with bed databus, white	57
Room terminal 99 Protect	108
Room terminal with display and doctor call	50
Room terminal with dotoctor call and display - Russian	54
Room terminal without display, with doctor call	55
S	
Safety cover and mounting set for 10 A power supply unit	31
Safety cover and mounting set for 20 A power supply unit	31
Safety cover and mounting set for 5 A power supply unit	31
Sealing kit for standard installations	83
Sensor push-button as call push-button	109
Sensor push-button as cancel push-button	109
Serial RS232 connection cable	100
Server Accounting Systems 19" Technology	43
Service remote-control for TV set 79691Nx	151
Single charging cradle for DECT telephone 790D4xx	146
Single-phase power supply 24 V DC (10 A)	30
Single-phase power supply 24 V DC (20 A)	31
Single-phase power supply 24 V DC (5 A)	30
Software FTC module for Esser FAT 3000	41
Software FTC module for FAT of other brands	42
Software FTC module for Notifier FAT 2002	42
Software License for the Accounting System	43
Software module for VITAL function monitoring	42
Sounder with low-profile base, white	163
Spare battery for DECT telephones 790D3xx and 790D4xx	147
Spare bracelet with fastener	122
Spare fastener	122
Spare foam pad (for 89760B/C - twin)	75
Spare tubes for pneumatic call unit	92
Standard plate	77
Surface mount base (double)	102
Surface mount base (single)	102
Surface mount base (triple)	103
Surface-mounted connection board for bed module	68
Surface-mounted connection board for room terminal	55
System cable for the actuator bus	71
System cable for the actuator bus, 100 m ring	99
System cable for the actuator bus, 400 m cable drum	99
System cable for the corridor databus, 100 m ring	99
System cable for the corridor databus, 400 m cable drum	99
System cable for the ward databus, 100 m ring	98
System cable for the ward databus, 400 m cable drum	98
System compact CL	161
System-Switch GS724TS Layer2, 24-Port	47
System-Switch GSM7328S Layer3, 24-Port	47
Systevo Control	22
Systevo Control for Systemrack	23
T	
TCP-IP / RS485 converter	126
Telephone interface unit for 35 mm mounting rail	102
Thermal Paper Roll for the Pay Station	44
Transponder for baby	130
Transponder for care giver	121
Transponder for mother	130
Transponder for surveillance	131
Transponder for the "dementia" patient	130
Transponder for the patient "alarm"	130
TV control contact for TV series HFL43xx	155
TV control module	154
TV control RC5 for TV series HFL43xx	155

Index

Keyword	Page
U	
Universal display module for bed / corridor databus	51
UPS module 230 V AC (19" installation)	34
UPS module 230 V AC (stand-alone device)	34
UPS module 24 V DC (10 A) for 10 A power supply unit	32
UPS module 24 V DC (20 A) for 20 A power supply unit	33
UPS module 24 V DC (5 A) for 5 A power supply unit	32
V	
Vacuum lifting pad for exchange of the foil	65
Vandalism-protected RFID module	110
VESA TV wall bracket VFW 326	153
VESA TV wall bracket VFW 332	151
W	
Wall Module LAN	74
Wall Module LAN basic	73
Wall Module Smart for a Patient Handset Systevo Com with a Telephone Function	73
Wall mounting kit for CCU 19"	141
Wire cutting tool for FO cable	100
Wire polishing tool for FO cable	101
Wire stripping tool for FO cable (1)	100
Wire stripping tool for FO cable (2)	100
Wireless call set with handheld transmitter IP65, 868MHz	91
Wireless handheld transmitter with bracelet and neck strap IP 65, 898 MHz	91
Z	
Zone indicator lamp (1 lamp)	163

TERMS AND CONDITIONS
Except as agreed in writing the following terms and conditions apply without exception to all sales by **Novar GmbH**, Dieselstr. 2, 41469 Neuss, Germany ("Novar") to Buyer.

1. SOLE TERMS.
Novar's sale is expressly limited to the terms herein. Any additional or different terms or conditions on Buyer's purchase order or any other instrument, agreement, or understanding are deemed to be material alterations and are rejected and not binding upon Novar. Novar's acceptance of Buyer's purchase order is expressly conditional upon Buyer's assent to the terms and conditions contained herein in their entirety. Buyer's acceptance of delivery from Novar constitutes Buyer's acceptance of these terms and conditions in their entirety.

2. QUOTE/ PRICES.
a) Information in any quotations and in attached drawings and illustrations about the goods, their measurements and weights are only approximate unless they are expressly stated as being binding.

b) Content and scope of the supply are determined exclusively on the basis of Novar's written quotation and order confirmation.

c) Novar's quotations are subject to change until accepted by the Buyer. If an offer is stated as being binding, it shall be binding for 3 months from its date of issue.

d) Novar reserves the right to make technical changes to construction, form and material of good - also during the delivery time - providing these changes are reasonably acceptable to Buyer. If agreed by the parties, changes to goods or services to be supplied, Novar is entitled to claim additional costs with immediate effect and is not obliged to perform the contract until Buyer agrees to make such payments.

e) Buyer must request shipment of the entire quantity of goods ordered within 12 months from date of order; otherwise, Novars's standard prices at time of shipment may, at Novar's option, apply to those quantities actually delivered, even if already invoiced.

f) Unless specifically agreed in writing prices for goods do not include the cost of packaging, or services such as installation, start-up, commissioning or maintenance. If Novar has expressly agreed to ship goods, shipment costs will be as per the quote or if none mentioned the relevant catalog.

g) All tooling, designs, drawings, and other intellectual property produced or delivered hereunder are owned by Novar.

3. PAYMENT.
a) Unless otherwise expressly agreed in writing, all payments are to be in EUROS and are due net in Novar's account within 30 days from date of invoice.

b) All bank charges in connection with any payment shall be paid by Buyer. Checks and/or bills of exchange will only be accepted in payment's stead and in accordance with a special written agreement. They are deemed as payment only when they have been cashed in.

c) Novar at all times reserves the right to evaluate Buyer's credit standing and if Buyer fails to qualify for credit under Novar's criteria, Novar may modify or withdraw credit terms without notice and require guarantees, security or payment in advance for further deliveries of goods. If these are not provided within a reasonable period following a notice, Novar may rescind the contract and/or claim costs, losses or damages.

d) Invoices remaining unpaid after their due date will be subject to an interest charge of 8%-points above the respective base rate published by the German Federal Bank per year, unless buyer is not responsible for the default. Buyer will pay all costs necessary for collection of unpaid amounts, including attorneys' fees, unless Buyer is not responsible for the default.

4. DELIVERY, EXAMINATION, RETENTION OF TITLE, COOPERATION.
a) All delivery dates are estimates unless agreed otherwise by Novar in writing.

b) Novar may make deliveries under any order in one or more shipments, to the extent that this is reasonably acceptable to Buyer, and may issue separate invoices.

c) Any fixed dates for deliveries agreed in writing are conditional upon the timely provision of all documents by the Buyer, any required authorizations and approvals, in particular of plans and the provision of all necessary information. If these requirements are not fulfilled in a timely manner, the fixed dates will be extended accordingly. This does not apply if Novar is responsible for the delay.

d) Novar may demand an appropriate extension of the delivery date in the event of subsequent changes agreed.

e) Delivery terms for goods are EX-WORKS (Incoterms 2000) Novar with all risk of loss or damage to goods passing to Buyer upon delivery to carrier.

f) Buyer must inspect all goods upon delivery without undue delay and must report i) obvious defects, transport damages, discrepancies and shortages without undue delay, and in no event later than 10 days after delivery, (ii) hidden defects without undue delay, and in no event later than 10 days after detection in writing to Novar. Otherwise all goods will be deemed delivered and accepted, unless Novar fraudulently neglected to disclose such faults. Buyer will return to Novar any goods that are rejected at its own expense. In the event Buyer refuses to accept delivery, Buyer shall be liable for increased costs incurred by Novar in accordance with section 7c).

g) Novar shall retain title in all goods delivered by Novar until payment has been made in full. In the event Buyer has credit with Novar, retention of title shall serve as security for any balance due to Novar.

h) Until title in the goods is transferred to Buyer, Buyer shall treat the goods with care; in particular it shall insure them sufficiently against fire, water and theft at reinstatement value at its own cost.

i) In the event of seizure or any other measure taken by third parties in relation to the goods, Buyer shall notify Novar in writing without undue delay so that Novar can initiate legal proceedings pursuant to § 771 of the German Code of Civil Procedure in order to prevent execution of any court order. If the third party is unable to reimburse the costs incurred in court and out of court of a claim pursuant to § 771 of the German Code of Civil Procedure, Buyer is liable for the damages incurred hereby.

j) Any processing of or alteration to the goods carried out by Buyer shall always be carried out for Novar. If the goods are processed using other items, which do not belong to Novar, Novar shall acquire co-ownership of the new item in the ratio of the value of the object delivered to the other processed items at the time of processing.

k) If the goods are irreversibly mixed using other items, which do not belong to Novar, Novar shall acquire co-ownership of the new item in the ratio of the value of the object delivered to the other mixed items at the time of mixing. If the mixing process takes place in such a way that Buyer's item must be regarded as the principal item the parties shall be deemed to have agreed that Buyer shall transfer shared title to Novar pro rata.

(l) Should Buyer sell the goods delivered – whether processed or not – in due course of business, it hereby assigns any claims from selling the goods with all ancillary rights vis-à vis its customer to Novar.

(m) On good cause Buyer is obliged, if requested by Novar, to inform Novar of any assignment to a third-party purchaser and to give Novar all information required for the assertion of its rights and to hand over any documents.

(n) Should the realizable value of Novar's security exceed the debt claim to be secured by more than 10 % Novar shall release part of the security – at its discretion – at the request of Buyer.

(o) Buyer shall make available in time all equipment and grant access to all facilities which Novar may require to perform any services.

5. TAXES.
The amount of any and all applicable taxes will be added to the price and paid by Buyer, unless Buyer has provided Novar with exemption certificates acceptable to the taxing authorities.

6. FORCE MAJEURE, DELAY.
a) Novar is not liable for any delay in production or delivery of goods if due to a force majeure event, which includes, among other things, shortages or inability to obtain materials or components, or refusals to grant an export license or the suspension or revocation thereof, or any other acts of any government that would limit Novar's ability to perform, fire, earthquake, flood, severe weather conditions, or any other acts of God, quarantines, epidemics, pandemics, or other regional medical crisis, labor strikes or lockouts, riots, strife, insurrection, civil disobedience, armed conflict, terrorism or war (or imminent threat of same), or any other cause whatsoever beyond Novar's reasonable control.

b) If the force majeure event continues for longer than 90 days, either party may terminate Buyer's purchase order. If Buyer terminates the order, Buyer will pay Novar for work performed prior to termination and all reasonable expenses incurred by Novar prior to termination. In the event of delays in delivery or performance caused by force majeure or Buyer, the date of delivery or performance shall be extended by the period of time Novar is actually delayed or as mutually agreed. Any claims for damages, costs or losses howsoever construed shall be excluded.

c) If, for reasons other than the foregoing, Novar should default or delay or not deliver goods, Buyer's sole remedy against Novar is an option to cancel Buyer's purchase order, through prior written notice to Novar. In as far as Buyer incurs damages due to a delivery delay, Novar's liability is limited to 0.5% of the order value of the delayed delivery per week up to a maximum amount of 5% of the order value of the delayed delivery. Buyer is only entitled to claim damages in lieu of performance in accordance with section 11 (limitation of liability).

7. TERMINATION, RETURN OF GOODS.
a) Buyer may not terminate or cancel a purchase order without Novar's prior written consent. Goods scheduled for shipment within 30 days cannot be rescheduled. Goods scheduled for shipment between 30 and 60 days may be rescheduled with Novar's prior written consent and if rescheduled beyond 60 days that quantity may not be further rescheduled. Buyer is nonetheless liable for termination charges, which may include i) a price adjustment based on the quantity of goods delivered, (ii) all costs, direct and indirect, incurred and committed for Buyer's terminated purchase order, (iii) the full cost of all unique materials required for custom goods, and (iv) a pro-rata compensation covering the prorated expenses and anticipated profits consistent with industry standards.

b) Novar may terminate a Buyer's purchase order in whole or in part upon Buyer's breach of these terms and conditions or Buyer's bankruptcy, insolvency, dissolution, or receivership proceedings without any further liability.

c) Returns of goods are only accepted in their original packed and sealed condition within six months after shipment. Software, customized products and products in opened packaging, lacquered and non-reusable parts cannot be returned. Goods can only be returned with an authorization number (RMA) obtained from Novar in advance of shipment to Novar. The RMA is specific to the relevant goods and quantity. Novar reserves the right to i) reject any return of other goods than specific to the RMA or (ii) charge an additional 25 € per return. In case of accepted returns, the purchase price shall be repaid with a deduction of up to 20% for processing, testing, administration and other overheads. The minimum charge for returns is 80.00 € per invoice. This does not affect the purchaser's rights under the product warranty. If the Purchaser withdraws from the Contract and is not entitled to do so, or if the Purchaser refuses to accept the delivery and is unjustified in doing so, the Seller is entitled to 15% of the agreed price as liquidated damages, unless the Purchaser proves that the Seller has not suffered any damage or to a lesser extent reserves the right to claim further damages.

8. INFRINGEMENT INDEMNIFICATION.
a) Novar agrees to i) defend or settle any claim, suit, or proceeding brought against Buyer based solely upon a claim that any goods manufactured and provided solely by Novar hereunder directly infringe any third party German patent, copyright, or maskwork, and (ii) to pay costs and damages finally awarded to the third party, provided that: i) Novar is notified promptly in writing of such claim, ii) Novar is provided sole control of such defense or settlement using counsel of Novar's choice, and ii) Buyer provides Novar with all available information and assistance. Because Novar has exclusive control over resolving infringement claims hereunder, in no event will Novar be liable for Buyer's attorneys' fees, if any.

b) Novar shall not be responsible for any settlement or compromise of any such third party claim made without Novar's written consent. Novar has no obligation and this Section 8 will not apply to any claim of infringement of any intellectual property right of a third party i) by goods not in Novar's catalog or goods developed pursuant to Buyer's direction, design, process, or specification, (ii) by the combination of any goods with other elements if such infringement could have been avoided but for such combination, (iii) by goods that have been modified if such infringement would have been avoided by the unmodified goods, (iv) by goods not used for their ordinary purpose, or (v) by software if such software is other than the latest version of the software released by Novar and provided to Buyer. Buyer agrees to defend, indemnify, and hold harmless Novar from and against any claims, suits, or proceedings whatsoever arising from such exclusions identified in this Section 8b), unless this is not caused by Buyer's failure.

c) At any time after a claim has been made or Novar believes is likely to be made, or a court of competent jurisdiction enters an injunction from which no appeal can be taken, Novar has at its option the discretion to i) procure for Buyer the right to continue using such goods, (ii) replace or modify such goods in a way that it does not further infringe any third party intellectual property rights and without affecting the functionality of said goods. In the event Novar fails to do so within a reasonable time limit to be set by Buyer, Novar shall accept the return of such goods and refund the purchase price less 20% annual depreciation from shipment date.

d) The foregoing states Buyer's exclusive remedy for any actual or alleged infringement of intellectual property rights. Buyer is only entitled to claim damages subject to section 11 (limitation of liability).

9. SOFTWARE.
a) The use of software, if provided separately or installed on a good supplied, is governed by the following terms unless a software license agreement is included with such software.

b) Subject to Buyer's compliance with these terms and conditions, Novar grants to Buyer a personal, limited, nonexclusive license to use the object code of the software solely for Buyer's internal purposes. The license is limited to such kinds of goods as are specified on Buyer's purchase order, quotation or acknowledgment. No other use is permitted.

c) Novar retains for itself (or, if applicable, its suppliers) all title and ownership to any software delivered hereunder, all of which contains confidential and proprietary information and which ownership includes, without limitation, all rights in patents, copyrights, trademarks, and trade secrets.

d) Buyer shall not attempt any transfer without prior written consent of Novar, sublicense, or redistribution of the software except as expressly permitted herein. Buyer is entitled to copy the software in as far as necessary for the contractual purpose. Buyer is entitled to make back-up copies in as far as necessary. Furthermore Buyer shall not disclose, distribute, or display any such software, or otherwise make it available to others (except as Novar authorizes in writing) or allow any unauthorized use of the software. Buyer is only entitled to reverse compile the software within the scope of § 69e UrhG. Buyer is only entitled to modify, upgrade or alter the software in any other way within the scope of § 69c UrhG.

e) Novar may terminate this license if Buyer breaches fundamental provisions under these terms and conditions. If the software is delivered with a good, Buyer may only transfer its license of the software to a third party in conjunction with the sale by Buyer of the good on which the software is installed.

10. WARRANTY.
a) To the extent permitted by law Novar shall only be liable in accordance with the following warranty conditions, which replace any other warranties or guarantees. Any other claim shall be excluded. In particular (unless otherwise agreed in writing) Novar does not warrant the fitness of the product for any specific use which would not be the use for which the product was designed by its manufacturer.

b) Except as otherwise expressly provided herein, Novar warrants goods in all material respects to be free of defective materials and faulty workmanship and as conforming to applicable specifications and/or drawings. Unless otherwise agreed in writing commencing with Novar's date of shipment, the warranty period shall run for 12 months. Warranty for spare parts is limited to 12 months from delivery.

c) Non-complying goods returned to Novar in accordance with Section 4 f) will be repaired or replaced, at Novar's option, and return-shipped at the lowest cost, transportation prepaid. The costs of transportation to Novar have to be borne by Buyer. In the event Novar fails to repair or replace the non-complying good within a reasonable time limit set by Buyer, Novar shall accept the return of such goods and refund the purchase price less 20% annual depreciation from shipment date. The foregoing states Buyer's exclusive remedy in case of defects. Buyer is only entitled to claim damages subject to section 11 (limitation of liability).

d) If so requested by Novar, the Buyer shall give Novar sufficient opportunity to verify any fault, in particular to provide faulty goods and their packaging to Novar for inspection. If the Buyer refuses, Novar shall not be liable for such defects. No goods will be accepted for return without an authorization number obtained in advance of shipment to Novar.

e) Goods subject to wear and tear or burnout through usage shall not be deemed defective because of such wear and tear or burnout. No warranty shall apply if the defect or damage was caused by or related to installation, combination with other parts and/or products, modification to or repair of any goods other than by Novar, or resulted from Buyer's acts, omissions, misuse, or negligence.

f) Repaired or replaced goods shall be warranted for the remainder of the unused warranty term or for 90 days from shipment, whichever is longer.

g) It is Buyer's responsibility to ensure that the goods are fit for the application in which they are used.

h) Software, if supplied separately or installed on goods supplied, and warranted by Novar, will be furnished on a medium that is free of defect in materials or workmanship under normal use for so long as the hardware and/or system is under warranty. During this period, Buyer has the rights listed in section 10 c) with regard to any defects of the software. Unless stipulated otherwise in a separate software license agreement no further warranty is given in respect of software.

i) If Novar provides any services to the Buyer, including but not limited to training or assistance with configuration and installation of the goods, Novar shall provide such services in accordance with normal industry practice at such rates as may be specified by Novar in its price list from time to time. In case of non-conformance which Novar has been notified of correctly and promptly, Novar will repeat services and/or correct accordingly. To the extent permitted by law Novar accepts no liability to the Buyer arising out of the provision of such services.

j) Novar does not represent or warrant that the goods may not be compromised or circumvented or that the goods will prevent any personal injury or property loss, burglary, robbery, fire or otherwise, or that the goods will in all cases provide adequate warning or protection. Buyer understands that a properly installed and maintained alarm may only reduce the risk of burglary, robbery, fire or other events occurring without providing an alarm, but it is not an insurance or guarantee that such will not occur or that there will be no personal injury or property loss as a result.

k)These warranties are for the benefit of the Buyer only and are not assignable or transferable.

l) Subject to appropriate storage and handling according to the manual Novar grants a guarantee of durability (in the meaning of §443 II German Civil Code) for 24 months from delivery date to the customer. Excluded are device software, consumables and spare parts. At Novar's discretion the product will either be replaced or repaired. Defects which occur within the guarantee period must be reported in writing immediately on detection or if earlier when it should have been recognized.

11. LIMITATION OF LIABILITY.
a) Novar is liable for intent and gross negligence on its part, on the part of its legal representatives and vicarious agents. If Novar has not acted intentionally Novar's liability is restricted to typical, foreseeable damage.

b) Novar shall also be liable in the event of negligent injury to life, body and health caused by Novar, its legal representatives or vicarious agents and in the event of wilful failure to disclose a defect. Where a guarantee is provided by Novar, then the extent of Novar's liability is to be determined pursuant to the guarantee declaration.

c) Novar shall also be liable for the negligent failure to comply with any of its obligations that are fundamental to the purpose of the agreement. If Novar has not acted intentionally Novar's liability is restricted to typical, foreseeable damage.

d) Additionally Novar shall be liable in cases of mandatory statutory liability, for example pursuant to the Product Liability Act.

e) Buyer shall indemnify Novar against any claims, damages, losses, costs and expenses incurred by Novar as a result of either claims made against Novar by third parties arising out of the combination or use of the goods with any incompatible ancillary products that may be connected to the goods or any other matter for which Novar would not be liable to Buyer under these terms and conditions .

f) Other than stated herein any liability of Novar is excluded, regardless of the theory of liability, whether based in contract, tort, indemnity or otherwise.

g) Buyer shall notify and consult with Novar without undue delay and comprehensively if it intends to take legal recourse in accordance with the afore-mentioned provision. Buyer has to allow Novar to investigate and examine the damages.

12. RECOMMENDATIONS.
Any recommendations or assistance provided by Novar concerning the use, design, application, or operation of the goods shall not be construed as representations or warranties of any kind, express or implied, and such information is accepted by Buyer at Buyer's own risk and without any obligation or liability to Novar. It is the Buyer's sole responsibility to determine the suitability of the goods for use in the Buyer's application(s). Other than in cases of statutory obligations the failure by Novar to make recommendations or provide assistance shall not give rise to any liability to Novar.

13. LAWS.
a) Buyer will comply with all applicable laws, regulations, and ordinances of any governmental authority in any country having proper jurisdiction, including, without limitation, those laws of the United States or other countries that regulate the import or export of the goods provided by Novar and shall obtain all necessary import/export licenses in connection with any subsequent import, export, re-export, transfer, and use of all goods, technology, and software purchased, licensed, and received from Novar. Unless otherwise mutually agreed in writing, Buyer agrees that it will not use or permit third parties to use the goods in connection with any activity involving nuclear fission or fusion, any use or handling of any nuclear material, or any nuclear, chemical, or biological weapons.

b) Goods and services delivered by Novar hereunder will be produced and supplied in compliance with all applicable laws and regulations in the Federal Republic of Germany. Buyer confirms that it will ensure that all goods are properly installed and used in accordance with the applicable safety at work laws and regulations, and Buyer will indemnify Novar in respect of any costs, claims, actions or liability arising out of that Act, or otherwise arising out of the supply by Buyer or use by others of the goods, unless this is not caused by Buyer's failure.

14. PRECLUSION AGAINST SETOFF.
Buyer is only entitled to set off any amount against any amount due or to become due from Novar to Buyer or its affiliates that are undisputed or final absolute.

15. WEEE.
a) Prices do not include the costs of recycling goods covered by the European WEEE Directive 2002/96/EC and such costs may be added to the prices quoted.

b) Unless a charge has been made therefore under section 15 a) above, if the provisions of the WEEE Directive 2002/96/EC as implemented in any local jurisdiction apply to goods, the financing and organization of the disposal of waste electrical and electronic equipment are with the exception of goods which are b2c as per Novar catalog the responsibility of the Buyer who herewith accepts this responsibility, and Buyer will indemnify Novar in respect of all such liabilities. The Buyer will handle the collection, processing and recycling of the goods in accordance with all applicable laws and regulations, and shall pass on this obligation to the final user of the goods. Failure by the Buyer to comply with these obligations may lead to the application of criminal sanctions in accordance with local laws and regulations.

16. APPLICABLE LAW.
These terms and conditions are subject to the Laws of the Federal Republic of Germany. These terms and conditions are excluded from the United Nations Convention on Contracts for the International Sale of Goods, 1980, and any successor thereto. The competent court at the seat of Novar will have exclusive jurisdiction to adjudicate any dispute related to these terms and conditions.

17. INDEMNIFICATION.
Buyer shall indemnify Novar for all costs and damages, including attorneys' fees, suffered by Novar as a result of Buyer's culpable actual or threatened breach of these terms and conditions.

18. MISCELLANEOUS.
a) The parties may exchange confidential information during the performance or fulfilment of any supply. All confidential information shall remain the property of the disclosing party and shall be kept confidential by the receiving party for a period of 10 years following the date of disclosure. These obligations shall not apply to information which is: (i) publicly known at the time of disclosure or becomes publicly known through no fault of recipient, (ii) known to recipient at the time of disclosure through no wrongful act of recipient, (iii) received by recipient from a third party without restrictions similar to those in this section, or (iv) independently developed by recipient. Each party shall retain ownership of its confidential information, including without limitation all rights in patents, copyrights, trademarks and trade secrets. A recipient of confidential information may not disclose such confidential information without the prior written consent of the disclosing party, provided that Novar may disclose confidential information to its affiliated companies in the sense of §§15ff AktG, and its and their employees, officers, consultants, agents, and contractors.

b) These terms and conditions (including those agreed separately in writing) constitute the entire agreement of Novar and Buyer, superseding all prior agreements or understandings, written or oral, and cannot be amended except by a mutually executed writing.

c) Buyer may not assign any rights or duties hereunder without Novar's written prior consent. Novar may subcontract its obligations hereunder without Buyer's consent. No representation, warranty, course of dealing, or trade usage not contained or expressly set forth herein will be binding on Novar.

d) Headings and captions are for convenience of reference only and do not alter the meaning or interpretation of these terms and conditions.

e) No failure by Novar to enforce at any time for any period the provisions hereof shall be construed as a waiver of such provision or of the right of Novar to enforce thereafter each and every provision.

f) In the event any provision herein is determined to be illegal, invalid, or unenforceable, the validity and enforceability of the remaining provisions shall not be affected and, in lieu of such provision, a provision as similar in terms as may be legal, valid, and enforceable shall be added hereto.

g) Provisions herein which by their very nature are intended to survive termination, cancellation, or completion of supply shall survive such termination, cancellation, or completion.

h) All stenographic and clerical errors are subject to correction. i) These terms and conditions shall confer no benefit on any third party.

19. LANGUAGE
The German language version of these terms and conditions will prevail in case of conflict with any translations provided for convenience purposes.

Neuss, February 2012

Notes

Notes

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