

**SCHRACK**  
**SECONET**

# Product catalogue

2026 | 2027

HOSPITAL



EN

HEALTH CARE



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# 1 General



Schrack Seconet security systems are developed in Austria, produced in Germany and incorporate both state-of-the-art technology and the latest scientific developments, while meeting all the latest applicable standards (European standards, requirements of European testing and certification bodies etc.). Schrack Seconet frequently cooperates with technical universities and international companies, as well as with testing and certification bodies, fire prevention bodies and fire brigade associations, so that products can be constantly optimized and adapted to meet new demands.



The high quality of Schrack Seconet products is ensured using an ISO 9001 approved Quality Assurance system throughout the company's activities (from development through production and sales processes through installation to customer service).

Considerable attention is paid in the development of products towards the separation of materials used, reusability, disposal and recycling to ensure that materials were processed in an as environmentally sound way as possible.

## 1.1 About this document

These descriptions and technical specifications correspond to the status as of the date of publication. Schrack Seconet reserves the right to make modifications, in particularly where they are justified as a result of technological progress. In the course of continual development, the products delivered may differ optically from shown products. Information which is not contained in this document can be requested at any time from one of our offices.

The original of this document was written in German. Foreign-language documents are released and modified with the German version. In the case of deviations in the foreign-language document, the German version of this document is the approved reference document.

The design of this document is subject to copyright law. The printing and the copying of contents (e.g. texts, images, photos) including extracts in any type of media (such as print, CD-ROM, internet) is only permitted with Schrack Seconet explicit written consent. For printing errors and obvious errors no liability is accepted. For enquiries and orders, please indicate article numbers.

## 1.1.1 Explanation of symbols

Important notes in this document are identified by the following symbols. Failure to observe these notes may result in malfunction of the security systems or in property or personal injury.



### **NOTE**

Contains notes to help you use the product or system more effectively and easily. Usage is optional.



### **CAUTION**

Indicates a danger, the non-observance of which may result in financial loss or damage to property.



### **ENVIRONMENTAL NOTICE**

#### **Electrical/electronic devices and batteries/rechargeable batteries**

Electrical and electronic devices as well as batteries or rechargeable batteries may not be disposed of in household rubbish. As the end user, you are legally obliged to return them. Used electrical and electronic devices as well as batteries or rechargeable batteries should be returned free of charge after use to the vendor or to the designated places for returning them (e.g. communal collection points or in shops). Proper disposal of the devices will relieve the burden on the environment. For more detailed information please contact your waste disposal center.

## 1.1.2 Information about the structure of the catalogue

### Product groups

The product groups are divided into chapters. Each chapter begins with a description of the product group and the possible structure of products. The connection options for the system connection are shown in a diagram.

### Product overview

The product overview is an overview of the available functions for each product. For each available function it is shown in which product this function is available.

### Article description

The articles are described with the information shown:



**No.: 21 1031502-01**

**Label and product type**

**Connection module SM2-B**

Connection module with two red Intellifix sockets for installation in a bed head unit or for wall-mounting.

For surface mounting, the corresponding APA-2 surface-mounted case is required; for flush mounting, a double switchbox installed in the wall must be provided for. Generally installed in patient rooms, near the bed in the vicinity of the headboard.

- Red Intellifix sockets for connecting two BT-B pear pushbuttons
- Automatic input monitoring of the Intellifix socket

**General short description and installation information**

**Picture and article number**

**Equipment features**

**Technical data**

System compatibility:	Visocall IP
Interfaces:	
System connection:	2 × RJ-12 sockets for connection to the basic interface of a ZTD-B, ZTD-B-L, ZT-B, ZE-B or SM-B (with power supply)
Installation:	Surface mounted, flush-mounted or in a bed head unit
Protection class:	IP 32, VDE 0834 Environmental class II
Ambient temperature:	+5 °C to +40 °C
Relative air humidity:	up to 95 % without condensation
Case:	Plastic ABS, white RAL 9016
Dimensions:	83 × 160 × 41 mm (HxB×T)
Weight:	97 g

### Product list and accessories

At the end of a chapter all products and variants as well as the respective accessories and spare parts are listed. The overview table contains descriptions, the product types and the article numbers for ordering products.

## 1.2 General safety notes

The planning of security systems as well as the installation, commissioning and maintenance of products and the systems which they form required specialist expert knowledge, and therefore may only be undertaken by specially trained experts according to the manufacturer's specifications. The product-specific training of staff members must be carried out by Schrack Seconet or by skilled staff who have been specifically authorised to carry out this duty by Schrack Seconet.

Schrack Seconet explicitly state, that security systems must be periodically maintained by certified and qualified staff in accordance with the relevant standards (such as VDE 0834), in order to maintain the functional and protective scope in the long term. For servicing and maintenance work on safety-related systems, the currently valid regulations of the country in which the system is being operated shall apply.

In addition, the respective country-specific regulations and guidelines for the planning, installation, service and maintenance must be adhered to and complied with. Damage and consequential damage caused by interventions or changes to products and their improper handling are excluded from liability. The same is also true for inappropriate storage of items and other detrimental external factors.



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## 2 Visocall IP call systems



### **The most important thing: the safety of patients**

Call systems in hospitals are primarily there to support people in emergency situations and to offer them assistance quickly. Reliability and fault-free operation is the highest priority for Visocall IP.

## 2.1 System overview

### Future-proof through IP technology

The increasing demands of a modern hospital require intelligent solutions for planning, implementation and future expansions. Conventional systems no longer meet these requirements in terms of functionality and life cycle costs. System integration with mature IP technology creates new possibilities:

- A powerful network for a wide variety of services and functions avoids a large number of individual installations, cabling expenditure and investment costs.
- System integration offers higher availability and reduced maintenance and operating costs over the entire system life.
- Simple data exchange using the Internet protocol overcomes conventional barriers and enables the smooth interconnection of various trades.

### Functions



- Staff call
- Telephony
- Speech connection between patient and staff
- Announcements
- Provision of media content (radio, TV, video streaming, internet, intranet)
- Control of light, blinds, TV
- Logging care data
- Cost accounting
- Connection of external systems (care assistance systems, alarm server, Real Time Localisation System (RTLS) server, fire alarm system, VoIP telephone system, external audio system)
- Information from external devices (medical devices, sensor mats etc.)

### Cost effective for installation and sales



- Secure, modular and expandable system structure offers planning freedom for all functions and services in the care sector
- Plug-and-play modules reduce commissioning and maintenance costs
- Durable and low-maintenance products

### For all forms of organization in health care



- Suitable for centralised, decentralised and mixed organizational forms
- Care organisation across ward boundaries
- Call prioritisation for fast and targeted response (emergency calls, Code Blue, etc.)
- Large selection of devices for exact adaptation to the care needs
- Intuitively operable devices for staff and patients

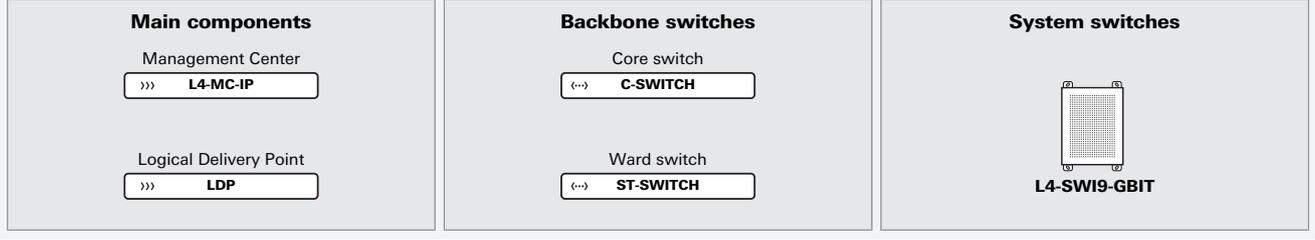
## Reliable, standard-compliant and safe



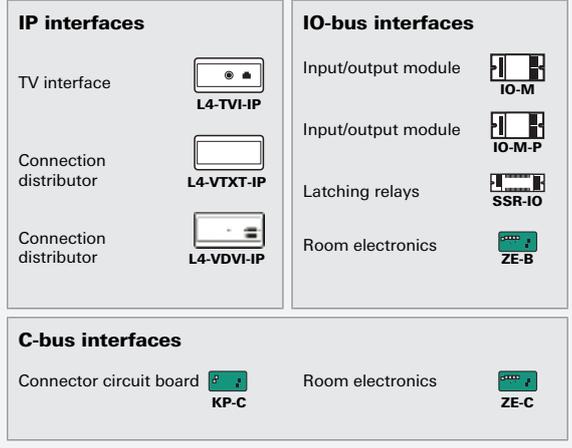
- Highest reliability due to decentralised, intelligent electronic components
- Redundant structures for uninterrupted system availability
- Clear prioritisation of network services with Quality of Service
- Permanent and automatic function control
- Visocall IP is certified according to VDE 0834 and thus meets the highest requirements regarding security and reliability

## 2.1.1 Overview of components

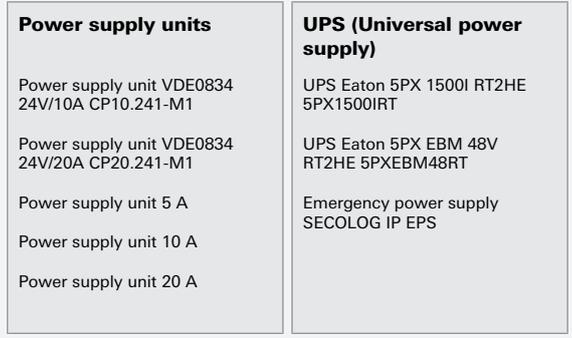
### Central system components



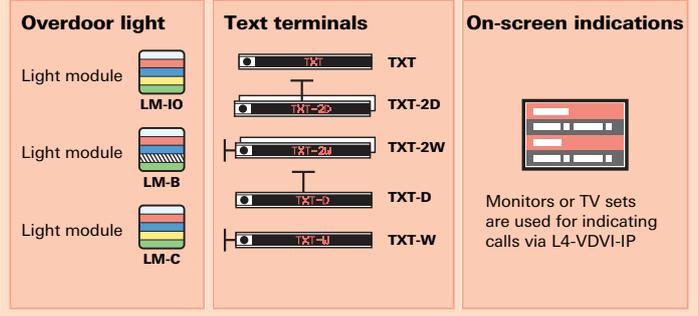
### Hardware interfaces



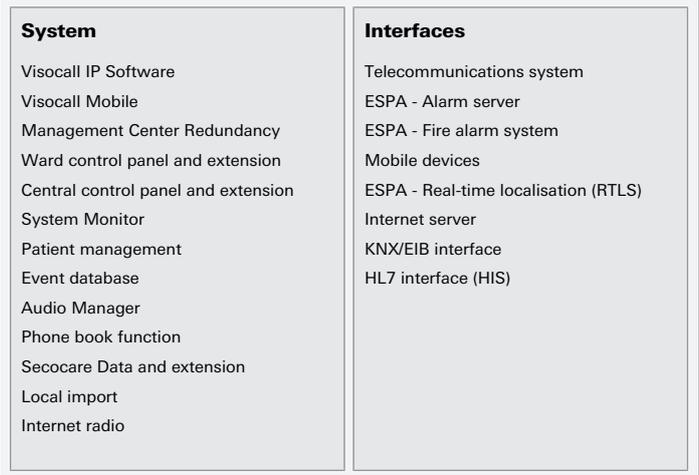
### Power supply



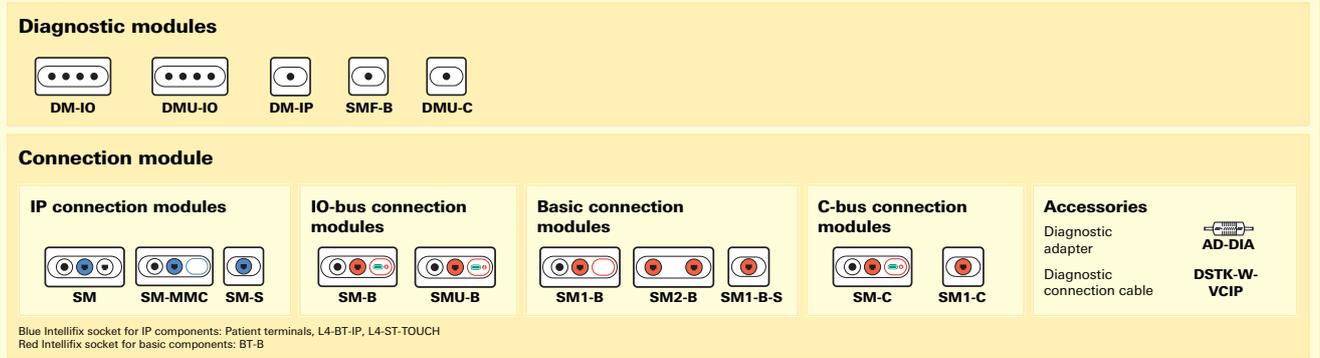
### Call indications



### Software licences



### Plug-in seals



System structure
  Signalling
  Connection modules

### Answering units

<b>Central control panel</b> 	<b>Ward control panel</b> 
<b>Staff terminal</b>  L4-ST-TOUCH/L4-ST-TOUCH-H	<b>Visocall Mobile</b> 

### Terminals

<b>Communications terminals</b>  L4-KMT  L4-KMT-L	<b>Room terminals</b>  ZTD-B  ZTD-B-L  ZT-B   ZTD-C  ZT-C
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### Patient handsets

<b>Patient terminals</b>  L4-PAT  L4-PAT-E  L4-PAT-L	<b>Pear pushbutton</b>  L4-BT-IP  BT-B
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### Call devices for special applications

Sensor mat A01C/B01C/C01C  
 Large-area bellows pushbutton MEDITOUCH-INTELLIFIX  
 Panic bar DADO 1050 mm

### TV sets

Beds TV   
 Room TV 

### Intercom terminals

ICT-IP Intercom terminal   
 Staff Terminal with additional system function   
**Door intercom terminal**

### Pushbuttons

IO-bus pushbutton	Basic pushbuttons
Call pushbutton  <b>RTB-IO</b> Call and service call pushbutton  <b>SRT-IO</b> Doctor call pushbutton  <b>ART-IO</b> Cancel pushbutton  <b>AT-IO</b> Presence pushbutton  <b>AWT-IO</b> Call/cancel pushbutton piezo  <b>RAT-P-IO</b> Call/cancel pushbutton  <b>RATB-IO</b> Doctor cancel pushbutton piezo  <b>ARAT-P-IO</b> Pull cord call switch  <b>ZTB-IO</b> Pull cord call/cancel pushbutton  <b>ZRAT-IO</b> Pneumatic call switch  <b>PT-IO</b>	Call pushbutton  <b>RTB-B</b> Doctor call pushbutton  <b>ART-B</b> Cancel pushbutton  <b>AT-B</b> Call/cancel pushbutton  <b>RATB-B</b> Pull cord call switch  <b>ZRTB-B</b> Pull cord call/cancel pushbutton  <b>ZRATB-B</b> Pneumatic call switch  <b>PT-B</b>

### C-bus pushbutton

Call pushbutton  <b>RT-C</b> Cancel pushbutton  <b>AT-C</b> Pull cord call/cancel pushbutton  <b>ZRAT-C</b> Presence pushbutton  <b>AWT-C</b>	Doctor cancel pushbutton piezo  <b>ARAT-C</b> Call/cancel pushbutton  <b>RAT-C</b> Pneumatic call switch  <b>PT-C</b>
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### Radio components

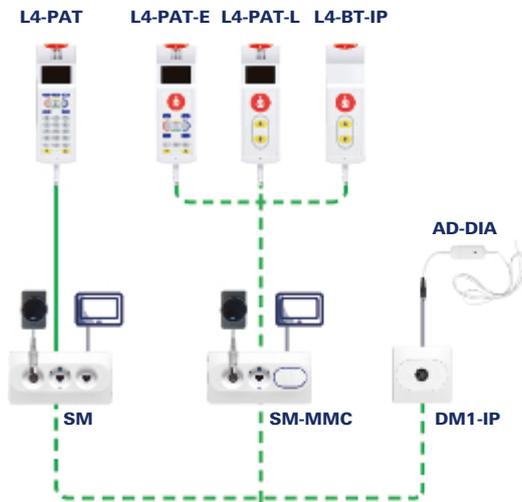
**Radio receiver**  
 **VR7-5**  
 **VR7-5 DIN-NT**

**Radio transmitter**  
 Combination radio transmitter F-VMPS-869  
 Radio pull-cord switch UF-ZS-869  
 Radio call pushbutton F-RTS-869  
 Radio pull-cord switch F-ZS-869  
 Radio pneumatic ball pushbutton F-PS-869  
 Radio motion sensor F-BS-869  
 Radio large-area bellows button MEDITOUCH-869  
 Radio cushion transmitter F-MP-869  
 Radio sensor mat A01/B01/C01  
 CareSens bed-rise monitoring CS BEC  
 Radio wandering detection F-WLS-869  
 Radio noise detector F-GSM-869

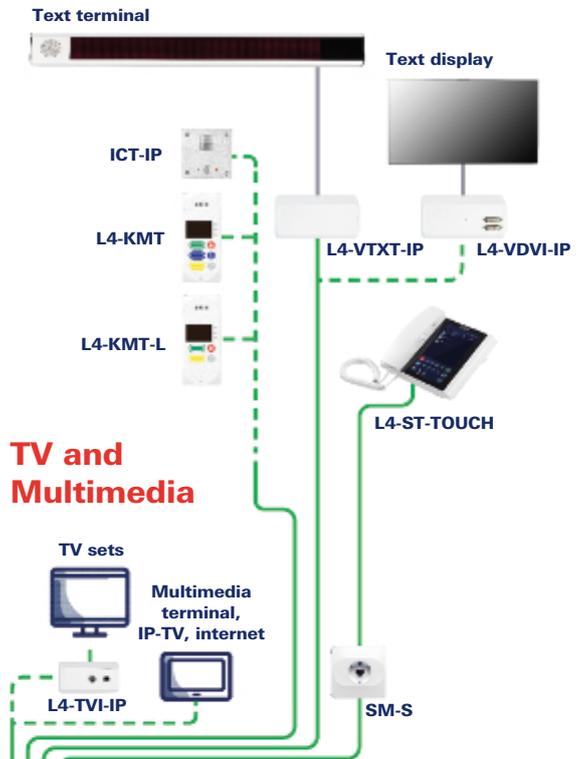
 operated by staff       operated by patients

## 2.1.2 System structure

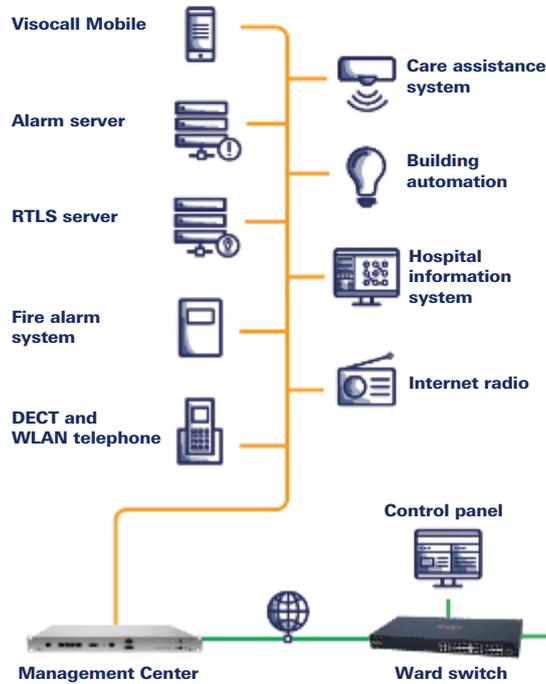
### Patient handsets



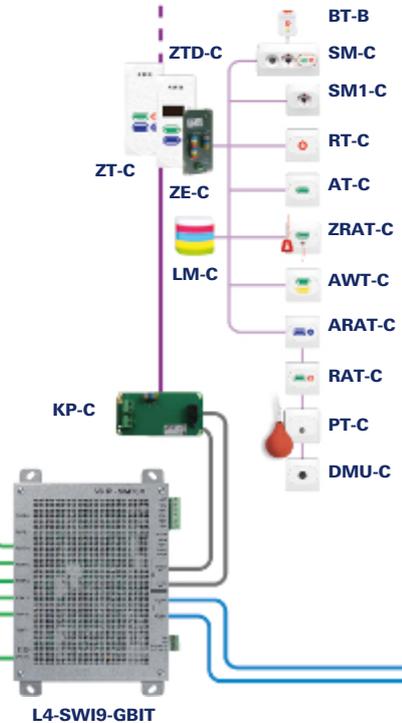
### Operating and indication devices



### Sub-trades and interfaces

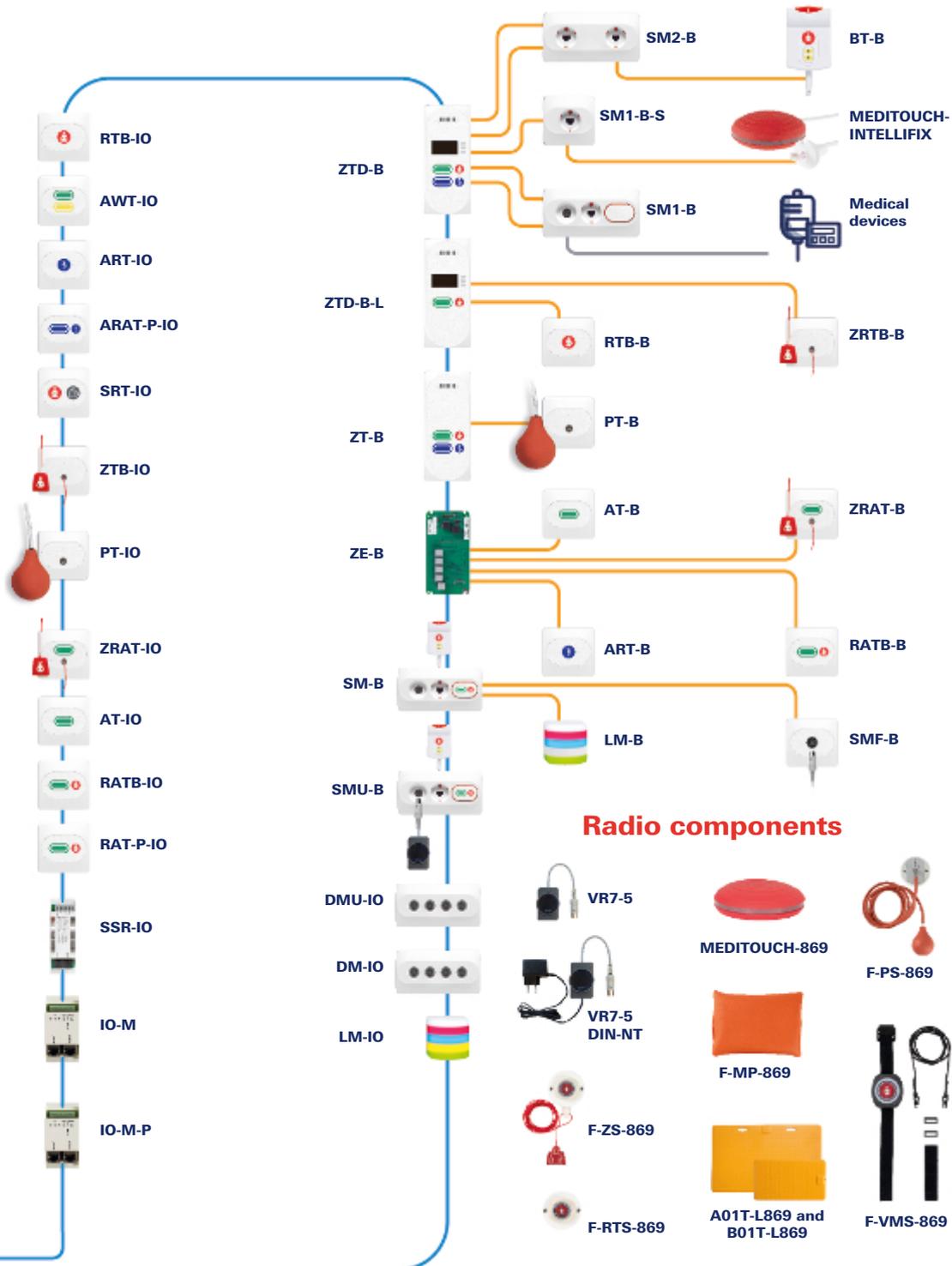


### C-bus components



## IO-bus components

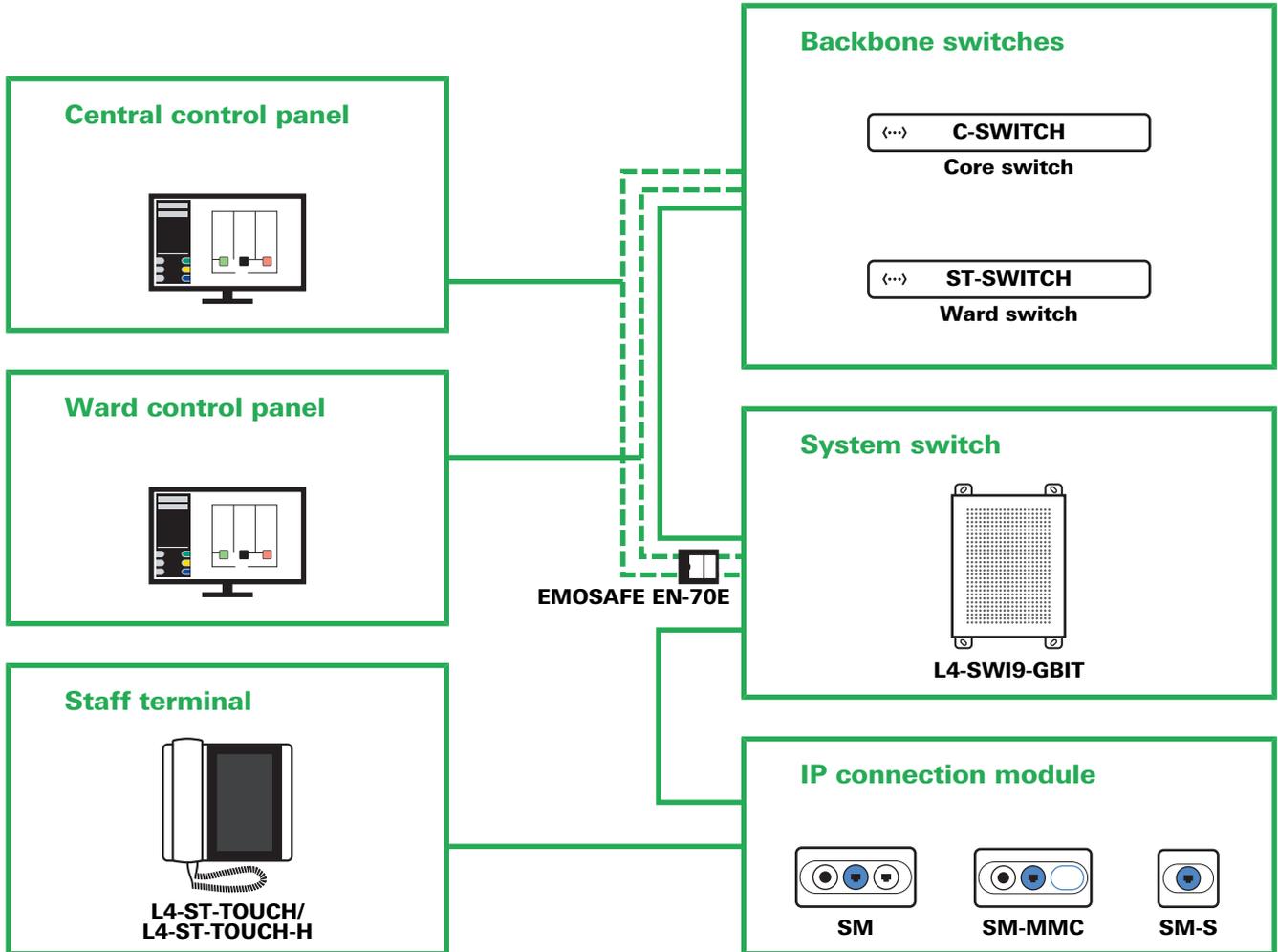
## Basic components



## 2.2 Answering units

According to VDE 0834-1:2016-06, an answering unit is a *device to indicate and answer calls, to switch them off by means of remote control, and to indicate information on the presence of one or several organisational groups*. For Visocall IP call systems, this definition applies to the Staff Terminal and the control panel.

The system connection is implemented as set out for a Staff Terminal to an IP connection module or for a control panel to a backbone switch or at port 8 of a system switch.



Connection scheme answering units

## 2.2.1 Product overview

Features	L4-ST-TOUCH	L4-ST-TOUCH-H	Visocall Mobile	Central control panel	Ward control panel
An overview of all events in a ward	•	•	•	•	•
An overview of all events in several wards	•	•	•	•	
Graphic user interface with building layout				•	•
Adjustable layout of the user interface				•	•
Announcements	•	•		•	•
Establishing speech connections to other components of the call system	•	•	•	•	•
Integrated IP phone	•	•			
Radio operation	•	•			
Call forwarding, call answering, setting reminder modes	•	•	•	•	•
Setting presences, releasing calls	•	•		•	•
Control of interconnections and centralisation of the ward	•	•		•	•
Management of care groups and call prioritisation of individual beds	•	•		•	•

## L4-ST-TOUCH Staff Terminal



**No.: 21-1010510-01**

Answering unit for staff as centralised communication and information centre of a ward. Speech connections and telephone calls are possible via the integrated hands-free facility or the receiver.

The system connection is implemented via an IP connection module with a blue Intellifix socket. For wall mounting, the corresponding ST-TOUCH-WH bracket is required.

- Call forwarding with set presences
- Answering in case of active call forwarding
- Announcements
- internet radio function
- Integrated loudspeaker and microphone for speech connection
- Two device base positions for adjusting the inclination angle
- Telephone function
- An overview of all events in the ward including:
  - Calls
  - Reminder modes
  - Presences
  - Faults
  - Interconnections
- 7 inch touch display for:
  - Set presences (green, yellow, blue)
  - Call triggering (e.g. emergency call)
  - Control of centralisation and interconnections of the wards
  - Managing care groups
  - Prioritisation of individual beds

System compatibility	Visocall IP, from software 8.0
Operating voltage range	17.5 to 30 V DC
Current consumption	0.15 A with 3.6 W typ.
Interfaces/system connection	1 × 100Base-TX interface with PoE for connection to a SWI9
Display	7-inch TFT display (480 × 800 pixels) with background lighting
Mounting	Surface-mounted or standing
Degree of protection	IP30, VDE 0834 Environmental class I
Ambient temperature	+5 °C to +40 °C
Relative air humidity	up to 85 % without condensation
Case material	plastic/ABS
Case colour	white, RAL 9016
Dimensions without cable, base and handset	189 × 213 × 39 mm (H×W×D)
Weight	1.1 kg



**No.: 21-1010511-01**

## L4-ST-TOUCH-H Staff Terminal

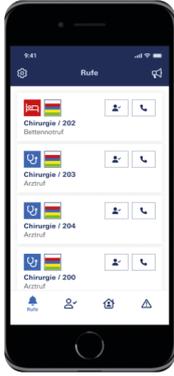
Answering unit for staff as centralised communication and information centre of a ward. Speech connections and telephone calls are possible via the integrated hands-free facility or the receiver.

The system connection is implemented via an IP connection module with a blue Intellifix socket and via a 26-pin HD-D-Sub socket for connection to the Visocall Plus C-bus/W. For wall mounting, the corresponding ST-TOUCH-WH bracket is required.

- Call forwarding with set presences
- Answering in case of active call forwarding
- Announcements
- internet radio function
- Integrated loudspeaker and microphone for speech connection
- Two device base positions for adjusting the inclination angle
- Telephone function
- Connection to Visocall Plus ward bus
- An overview of all events in the ward including:
  - Calls
  - Reminder modes
  - Presences
  - Faults
  - Interconnections
- 7 inch touch display for:
  - Set presences (green, yellow, blue)
  - Call triggering (e.g. emergency call)
  - Control of centralisation and interconnections of the wards
  - Managing care groups
  - Prioritisation of individual beds

System compatibility	Visocall IP, Visocall Plus
Operating voltage range	17.5 to 30 V DC
Current consumption	0.15 A with 3.6 W typ.
Interfaces	
System connection/TX interface	1 × 1100Base-TX interface with PoE (Visocall IP only) for connection to a SWI9
System connection	1 × 26-pin HD-D-Sub socket for connection to the Visocall Plus ward bus incl. power supply
Display	7-inch TFT display (480 × 800 pixels) with background lighting
Mounting	Surface-mounted or standing
Degree of protection	IP30, VDE 0834 Environmental class I
Ambient temperature	+5 °C to +40 °C
Relative air humidity	up to 85 % without condensation
Case material	plastic/ABS
Case colour	white, RAL 9016
Dimensions without cable, base and handset	189 × 213 × 39 mm (H×W×D)
Weight	1.1 kg

## VC MOB BP Visocall Mobile basic package



**No.: 21-1009130-01**

The Visocall Mobile software, consisting of the Visocall Mobile App and the Visocall Mobile Admin web application, is a software solution that allows care staff to display and manage information from the Visocall IP communication system on their mobile devices. Visocall Mobile allows for reception, indication and confirmation of different call types, reminder modes and staff presences of a Visocall IP communication system. Visocall Mobile App is available for both iOS and Android devices.

Push notifications ensure user-friendly notification via the Internet. Compliance with data protection guidelines is taken into account, it is not possible to transmit personal data via push notifications.

Visocall Mobile App is used via licence packages and is agreed to via mobile device as follows:

- Up to five users per licence package can use the application at the same time.
- A member of care staff with a mobile device is considered a user if the app is installed and the caregiver logs into Visocall Mobile.
- When the maximum number of users is reached, additional users can only log in if another user logs out.
- Additional simultaneous users can only be set by purchasing additional licence packages.
- The number of licence packages per system is unlimited.

The Visocall Mobile Admin web application is used for simple administration of users by the main administrator. At the start of their shift, care staff can define their assigned wards without any additional administrative work for the care management.

- A main administrator access allows additional users to be set up for the Visocall Mobile application.
- Any number of users can be created on Visocall Mobile Admin. Access is controlled via licence packages, as described in the Licensing and use section. The web application can be used without restrictions or a maximum number of users

- There are two authorisation levels for users. The App User role allows access to the Visocall Mobile App, while the Administrator role allows access to the Visocall Mobile Admin web application.
- WLAN coverage throughout the building accessible for all mobile devices with Visocall Mobile App
- Internet connection for the following functions:
  - Mobile devices/Visocall Mobile App for receiving push notifications
  - Visocall Mobile Server for sending push notifications
  - Visocall Mobile Server for licence updates
- Connection between Visocall Mobile Server and Management Center (L4-MC-IP) must be possible
- Visocall IP software version 9.0 or higher
- Visocall Mobile Server (and Visocall Mobile Admin) in the same network as WLAN
- Mobile devices with Android or iOS and Visocall Mobile App from Apple App Store or Google Play Store

## Visocall Mobile Server VC MOB SRV



No.: 21-1001010-01

The Visocall Mobile-Server is used for communication between the Management Center and the mobile devices. The server is integrated into the customer network via LAN or WLAN. All required services and databases (e.g. users) are preconfigured on the Visocall Mobile-Server. With an SSL certificate issued by the manufacturer, mobile devices can establish an encrypted connection (https) via the Visocall Mobile-Server.

Operating system	Windows 11 Pro
Processor/CPU	Intel Core i7
Memory/RAM	128 GB
Hard disk space	500 GB up to 2 TB
Graphics card	Intel UHD Graphics 770

## LS ward and central control panel



No.: 21-1001001-01

A control panel is designed for providing a simple and clear computer-assisted visualisation and operation of the entire ward (ward control panel) or several wards up to an entire call system (central control panel), depending on licence and configuration. The graphic interface provides clear ward plans, interactive room buttons, event lists and context-related control buttons. It thus provides a clear overview at any time of the events occurring in the respective ward.

The screen content is displayed in real time. The control panel enables you to respond to the call, regardless of the call location or priority. This begins a conversation and, if necessary, the relevant reminder modes are set. Room or bed selection is supported, as well as general or staff categories-related announcements.

The standard software also includes group care of up to 255 care groups per system, which can be freely defined by the user (max. 75 wards).

The computer can also be used for using additional software applications of the call system (for managing RFID chip cards).

The software for the central control panel is installed on a computer connected to the network of the call system. System connection is implemented via a backbone switch or port 8 of a switch system.

- Call forwarding for set presences
- Answering in case of active call forwarding
- Setting reminder modes
- Announcements
- Speech connections with loudspeaker and microphone
- The graphic user interface offers clear ward layouts and ward areas as an option
- Adjustable layout of the graphic user interface
- An overview of all events in the ward(s)
  - Calls
  - Reminder modes
  - Presences
  - Faults
  - Interconnections
- Graphic user interface for:
  - Set presences (green, yellow, blue)
  - Call triggering (e.g. emergency call)
  - Control of centralisation and interconnections of the wards
  - Managing care groups
  - Prioritisation of individual beds

Operating system	Windows 11 Pro 22H2
Processor/CPU	Intel i5-12500 3.00 GHz
Memory/RAM	16 GB
Hard disk space	512 GB
Graphics card	Intel UHD Graphics 770

## EMOSAFE EN-70E network isolator



**No.: 21-1000500-01**

Connector for the safe isolation (2 × MOPP in accordance with DIN EN 60601-1) of a control panel or an external device from the rest of the call system according with VDE 0834.

- Safe isolation 2 × MOPP in accordance with DIN EN 60601-1
- Can be used in PoE networks (no PoE power supply after the network isolator)
- Small size and easy installation

Required between:

- System switch port 8 and control panel
- System switch port 8 and external device
- Multimedia socket of a connection module (SM, SM-MMC) and external device

System compatibility	Visocall IP
Interfaces/system connection	2 × RJ-45 sockets for connection to a system switch (port 8) or a backbone switch
Degree of protection	IP40
Case material	Plastic
Case colour	white and grey
Weight	12 g

## Answering units and accessories

	Designation	Type	Article no.
	<b>L4-ST-TOUCH Staff Terminal</b>	L4-ST-TOUCH	21-1010510-01
	<b>L4-ST-TOUCH-H Staff Terminal</b>	L4-ST-TOUCH-H	21-1010511-01
	<b>Wall-mounted bracket for Staff Terminal</b>	ST-TOUCH-WH	FC010003
	<b>Receiver for Staff Terminal (replacement)</b> including connection cables	ST-TOUCH-HK	21-1002050-01
	<b>Base for staff terminal (replacement)</b>	ST-TOUCH-STF	21-1002051-01
	<b>Connection cable for Staff Terminal</b> Cable lengths 2.8 m	ST-TOUCH-AK	FC81818
	<b>Visocall Mobile server</b> with installed software	VC MOB SRV	21-1001010-01
	<b>Visocall Mobile basic package</b> Software and dongle	VC MOB BP	21-1009130-01
	<b>Control panel PC</b> Hardware for operating a control panel, incl. operating system (without control panel software licence)	LS	21-1001001-01
	<b>Null modem cable 1.8 m</b> with two D-SUB DE9 connectors for the connection of two control panels via RS-232	DB9-2M	21-9031000-01
	<b>Null modem cable 3 m</b> with two D-SUB DE9 connectors for the connection of two control panels via RS-232	DB9-3M	21-9031001-01
	<b>EMOSAFE network isolator</b>	EMOSAFE EN-70E	21-1000500-01
	<b>VOIP receiver</b> for speech functions and announcements	VOIP-H	FC010071
	<b>Mifare Reader USB</b> for reading Mifare cards	MFR-3700	FC017330
	<b>Mifare card</b>	MFC4C-CD	21-1002500-01
	<b>Software licence Visocall IP for Visocall Mobile</b>	SWP-IP/VC MOB	21-1009132-01

	<b>Designation</b>	<b>Type</b>	<b>Article no.</b>
	<b>Visocall Mobile app licences</b> for five users logged in simultaneously	VC MOB LIC5	21-1009133-01
	<b>Software licence ward control panel</b> Licence for the operation of a control panel	SWP-IP/SLS	21-1009100-01
	<b>Software licence ward control panel extension</b> Licence for the operation of a control panel	SWP-IP/SLS-EXT	21-1009101-01
	<b>Software licence central control panel</b> Licence for the operation of a control panel	SWP-IP/ZLS	21-1009102-01
	<b>Software licence central control panel extension</b> Licence for the operation of a control panel	SWP-IP/ZLS-EXT	21-1009103-01
	<b>Software licence telephone book function</b> for Staff Terminal	SWP-IP/PBF	21-1009107-01

## 2.3 Patient handsets

Patient handsets are designed to release patient calls. They are designed as handy handheld units for use from patient beds. The devices can be changed any time by simply plugging them in and out. In accordance with VDE 0834, this will generate a disconnection call in the system. All patient handsets are equipped with locating or reassurance lights and are therefore suited for use in the dark.



### CAUTION

#### Do not attach to rising aids

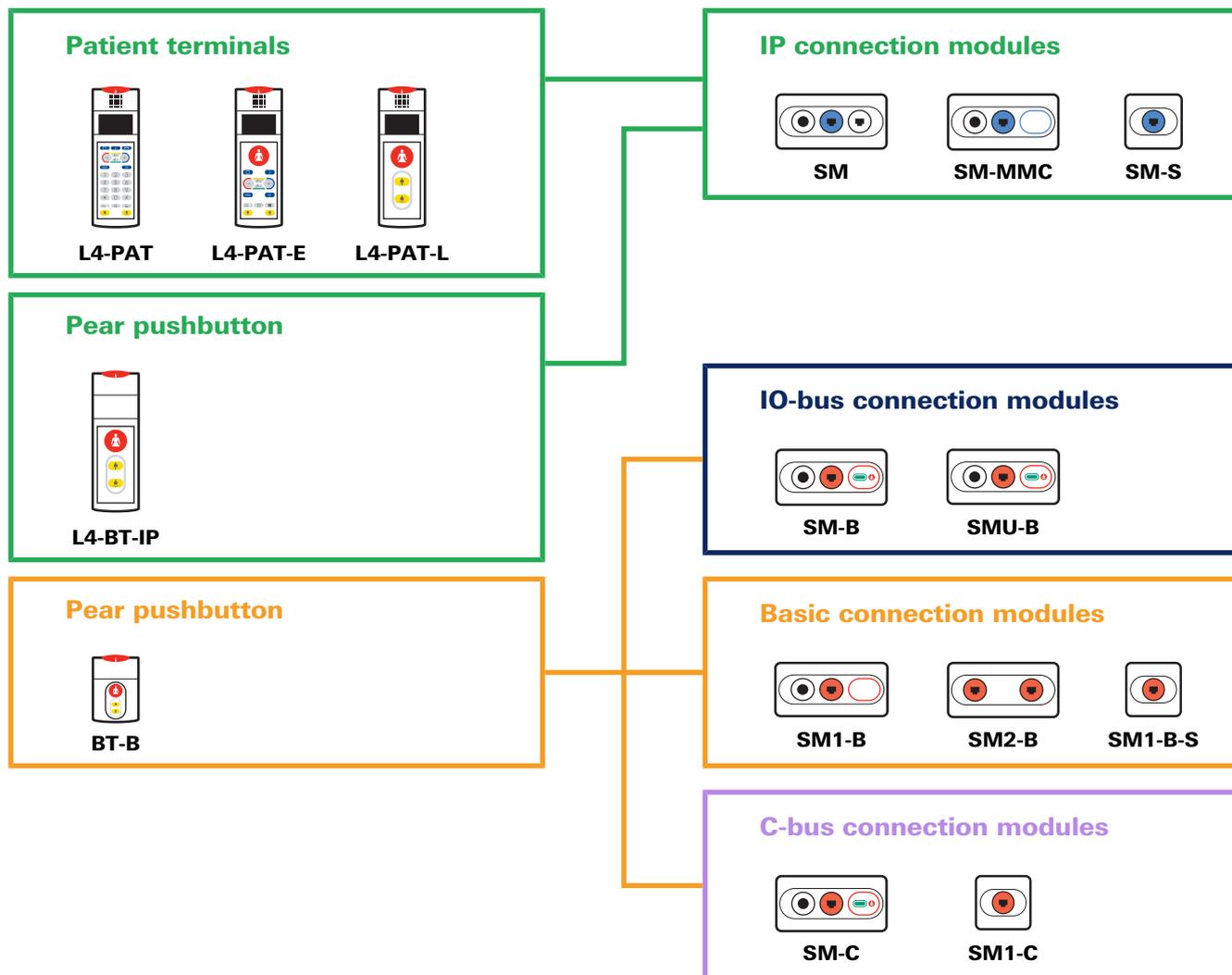
Devices and their cables may not be wound around or attached to rising aids, as the device may be damaged if the patients use the device to pull themselves up. The devices may also be damaged when falling off due to inappropriate mounting.

The appropriate accessories must be used for attaching patient handsets to the bed.

Patient handsets can be broken down into two groups according to their range of functions:

- **Pear pushbuttons** are very easy to use and enable patients to call care staff and control light sources connected to the system.
- **Patient terminals** are equipped with a display and extended functions, e.g. a speech connection option between staff and patient.

The system connection is implemented as outlined via the corresponding Intellifix socket of a connection module. This specially designed plug-in connection with auto disconnect mechanism minimises damage to cables, plugs and sockets. The IP devices PAT, PAT-E, PAT-L and BT-IP must be connected to blue Intellifix sockets. The BT-B pear pushbutton is connected to red Intellifix sockets.



Connection scheme patient handsets

## 2.3.1 Product overview

Features	L4-PAT	L4-PAT-E	L4-PAT-L	L4-BT-IP	BT-B
Call button (red) with locating and reassurance light	•	•	•	•	•
Room and reading light control (optional KNX)	•	•	•	•	•
Germ-resistant case and keyboard	•	•	•	•	•
IntellifixSelf-ejecting plug	•	•	•	•	•
Call function with communication option	•	•	•		
LC display with position alignment and automatic brightness control	•	•	•		
Headphones socket	•	•			
Service call with optional speech connection	•	•			
Radio operation	•	•			
Channel selection and volume adjustment for system TV	•	•			
Integrated IP phone	•	1			
Automatic setting of the presence	•	•	•		
Secocare Data	•	•			
Control system for blinds (optionally KNX)	•	•			
IR reception for integration of home automation devices	•	•			
Automatic volume level	•	•			
Menu-driven operation	•	•			
Numerical keypad	•				
Connection to IP connection modules	•	•	•	•	
Connection to IO-bus connection modules or basic connection modules					•
Connection to C-bus connection modules					•

<sup>1</sup> Limited to the acceptance of incoming telephone calls

## L4-PAT patient terminal



No.: 21-1011010-01



No.: FC010240

Patient handset for call release, light, TV and blind control, playing radio programmes and speech connection. The device is operated via a keypad and the call button is equipped with a locating and reassurance light.

The system connection is implemented via an IP connection module with a blue Intellifix socket. The appropriate accessories must be used for attaching the device to the bed.

- Call button on the top end in redundant version (button and photoelectric sensor)
- Germ inhibiting membrane keypad for controlling two independent light sources, electric blinds and a system TV
- Automatic adjustment of the display brightness to the ambient light
- Integrated loudspeaker and microphone for speech connection
- Integrated LC display with position alignment
- Service call button
- Holding device and antenna for reading RFID chip cards
- Care record
- Automatic volume adjustment
- Telephone function
- internet radio function
- Integrated headphones socket
- Infrared receiver for environmental control devices

System compatibility	Visocall IP, from software 7.2
Operating voltage range	20 to 30 V DC
Current consumption	45 mA with 1080 mW typ.
Interfaces	
System connection	1 × blue Intellifix connector for connecting an IP connection module (LAN interface with PoE)
RFID	RF communication in accordance with ISO/IEC 14443 Type A for MIFARE cards (Ultra-light, Classic, Plus and DESFire EV1)
Headphone socket	3.5 mm jack plug
Infrared receiver	36 kHz receiver for RC5 signals
Display	fully graphic LC display (128 × 64 pixels) with backlight
Degree of protection	IP54, VDE 0834 Environmental class III
Ambient temperature	+5 °C to +40 °C
Relative air humidity	5 to 95% without condensation
Cable length	2.8 m with 200 N strain relief (relating to the device)
Case material	plastic/ASA
Case colour	white, RAL 9016
Dimensions	205 × 65 × 25 mm (H×W×D)
Weight	206 g

## L4-PAT-E patient terminal Easy



**No.: 21-1011012-01**



**No.: FC010240**

Patient handset for call release, light, TV and blind control, playing radio programmes and speech connection. The device is operated via a keypad and the call button is equipped with a locating and reassurance light.

The system connection is implemented via an IP connection module with a blue Intellifix socket. The appropriate accessories must be used for attaching the device to the bed.

- Call button on the top end in redundant version (button and photoelectric sensor)
- Germ inhibiting membrane keypad for controlling two independent light sources, electric blinds and a system TV
- Automatic adjustment of the display brightness to the ambient light
- Integrated loudspeaker and microphone for speech connection
- Integrated LC display with position alignment
- Service call button
- Holding device and antenna for reading RFID chip cards
- Care record
- Automatic volume adjustment
- Telephone function
- internet radio function
- Integrated headphones socket
- Infrared receiver for environmental control devices

System compatibility	Visocall IP, from software 7.2
Operating voltage range	20 to 30 V DC
Current consumption	45 mA with 1080 mW typ.
Interfaces	
System connection	1 × blue Intellifix connector for connecting an IP connection module (LAN interface with PoE)
RFID	RF communication in accordance with ISO/IEC 14443 Type A for MIFARE cards (Ultra-light, Classic, Plus and DESFire EV1)
Headphone socket	3.5 mm jack plug
Infrared receiver	36 kHz receiver for RC5 signals
Display	fully graphic LC display (128 × 64 pixels) with backlight
Degree of protection	IP54, VDE 0834 Environmental class III
Ambient temperature	+5 °C to +40 °C
Relative air humidity	5 to 95% without condensation
Cable length	2.8 m with 200 N strain relief (relating to the device)
Case material	plastic/ASA
Case colour	white, RAL 9016
Dimensions	205 × 65 × 25 mm (H×W×D)
Weight	195 g

## L4-PAT-L patient terminal Light



**No.: 21-1011013-01**



**No.: FC010240**

Patient handset for call release, light control and speech connection. The device is operated via a keypad; the call buttons are equipped with a locating and reassurance light.

The system connection is implemented via an IP connection module with a blue Intellifix socket. The appropriate accessories must be used for attaching the device to the bed.

- Call button on the top end in redundant version (button and photoelectric sensor)
- Germ inhibiting membrane keypad with an addition call button and keys for controlling two independent light sources
- Automatic adjustment of the display brightness to the ambient light
- Integrated loudspeaker and microphone for speech connection
- Integrated LC display with position alignment

System compatibility	Visocall IP, from software 7.2
Operating voltage range	20 to 30 V DC
Current consumption	45 mA with 1080 mW typ.
Interfaces/system connection	1 × blue Intellifix connector for connecting an IP connection module (LAN interface with PoE)
Display	fully graphic LC display (128 × 64 pixels) with backlight
Degree of protection	IP54, VDE 0834 Environmental class III
Ambient temperature	+5 °C to +40 °C
Relative air humidity	5 to 95% without condensation
Cable length	2.8 m with 200 N strain relief (relating to the device)
Case material	plastic/ASA
Case colour	white, RAL 9016
Dimensions	205 × 65 × 25 mm (H×W×D)
Weight	196 g

## L4-BT-IP pear pushbutton



**No.: 21-1011014-01**



**No.: FC010240**

Patient handset for call release and light control. The device is operated via a keypad; the call buttons are equipped with a locating and reassurance light.

The system connection is implemented via an IO-bus, a Basic or C-bus connection module with a red Intellifix socket. The appropriate accessories must be used for attaching the device to the bed.

- Call button on the top end
- Germ inhibiting membrane keypad with an addition call button and keys for controlling two independent light sources

System compatibility	Visocall IP
Operating voltage range	20 to 30 V DC
Current consumption	45 mA with 1080 mW typ.
Interfaces/system connection	1 × blue Intellifix connector for connecting an IP connection module (LAN interface with PoE)
Degree of protection	IP54, VDE 0834 Environmental class III
Ambient temperature	+5 °C to +40 °C
Relative air humidity	5 to 95% without condensation
Cable length	2.8 m with 200 N strain relief (relating to the device)
Case material	plastic/ASA
Case colour	white, RAL 9016
Dimensions	205 × 65 × 25 mm (H×W×D)
Weight	177 g

## BT-B pear pushbutton



**No.: 21-1031000-01**



**No.: 21-1002210-01**

Patient handset for call release and light control. The device is operated via a keypad; the call buttons are equipped with a locating and reassurance light.

The system connection is implemented via an IO-bus, a Basic or C-bus connection module with a red Intellifix socket. The appropriate accessories must be used for attaching the device to the bed.

- Call button on the top end
- Germ inhibiting membrane keypad with an addition call button and keys for controlling two independent light sources

System compatibility	Visocall IP
Operating voltage range	15 to 30 V DC
Current consumption	0.2 mA typ. with 4.8 mW in idle mode 3.5 mA typ. with 84 mW at call release
Interfaces/system connection	1 × red Intellifix connector for connecting an IO-bus plug-in module, a basic plug-in module or a C-bus plug-in module
Degree of protection	IP54, VDE 0834 Environmental class III
Ambient temperature	+5 °C to +40 °C
Relative air humidity	5 to 95% without condensation
Cable length	2.8 m with 200 N strain relief (relating to the device)
Case material	plastic/ASA
Case colour	white, RAL 9016
Dimensions	96 × 65 × 25 mm (H×W×D)
Weight	76 g

## Cradle for K-PAT patient handset



**No.: FC010240**

Cradle for the upright storage of a patient terminal or pear pushbutton. The integrated magnet turns up the volume of the connected patient handset. Two countersunk head screws (Ø 4 mm) are needed to attach the device. The aluminium base for cradles can be used for mounting the device on a standard rail.

System compatibility	Visocall IP
Case material	plastic/ASA
Case colour	white, RAL 9016
Dimensions	67 × 70 × 32 mm (H×W×D)
Weight	22 g

## Cradle for BT-B pear pushbutton without K-PAT-OM magnet



**No.: 21-1002210-01**

Cradle for upright storage of a pear pushbutton. Two countersunk head screws (Ø 4 mm) are needed to attach the device. The aluminium base for cradles can be used for mounting the device on a standard rail.

System compatibility	Visocall IP
Case material	plastic/ASA
Case colour	white, RAL 9016
Dimensions	67 × 70 × 32 mm (H×W×D)
Weight	22 g

## Aluminium base for K-PAT-AS cradle



No.: 21-1002200-01

Mounting base for attaching a K-PAT cradle to a standard rail. The aluminium base incl. the fastening screw and two screws for attaching the cradle are supplied per default.

System compatibility	Visocall IP
Case material	aluminium
Dimensions without fastening screw	59 x 35 x 26 mm (HxWxD)
Weight	122 g

## HB-PAT holding clip



No.: 21-1002005-01

Holding clip for attaching a patient terminal or a BT-IP pear pushbutton to the side rail of a bed. The flat end of the clip is slid into the recess on the rear of the patient handset. The bent end of the holder is then attached to the bed.



### NOTE

The HB-PAT holding clip is insert into the rear card slot on the patient handset; this means that the RFID function cannot be used in combination with this accessory.

System compatibility	Visocall IP
Case material	plastic/ASA
Case colour	white, RAL 9016
Dimensions	85 x 60 x 48 mm (HxWxD)
Weight	26 g

## Patient handsets and accessories

	Designation	Type	Article no.
	<b>L4-PAT patient terminal</b>	L4-PAT	21-1011010-01
	<b>L4-PAT-E patient terminal Easy</b>	L4-PAT-E	21-1011012-01
	<b>L4-PAT-L patient terminal Light</b>	L4-PAT-L	21-1011013-01
	<b>L4-BT-IP pear pushbutton</b>	L4-BT-IP	21-1011014-01
	<b>BT-B pear pushbutton</b>	BT-B	21-1031000-01
	<b>Cradle for patient handset</b>	K-PAT	FC010240
	<b>Cradle without magnet</b> only for BT-B	K-PAT-OM	21-1002210-01
	<b>Aluminium base for cradle K-PAT</b>	K-PAT-AS	21-1002200-01
	<b>Holding clip for patient handset</b> For attaching a patient terminal or a BT-IP pear pushbutton to the side rail of a bed	HB-PAT	21-1002005-01
	<b>Holding clip for PAT</b> For attaching a device cable to a cable	HC-PAT	21-1002006-01
	<b>Holding clip</b> For attaching a device cable to a bed sheet	HC-VC	FC12804
	<b>Mounting clip (Ø 27 mm)</b> For attaching a device cable to a rising aid	HL27-VC	FC12803--A
	<b>Mounting clip (Ø 38 mm)</b> For attaching a device cable to a rising aid	HL38-VC	FC12803--B
	<b>Holding clip for connection cable</b> For attaching several device cables to the bed frame	HB-VC	FC12805
	<b>PAT spiral connection cable (replacement)</b> with 33 cm connection cable and RJ-45 connector	AK-PAT-BL-SPIRALE	21-1011250-01

	<b>Designation</b>	<b>Type</b>	<b>Article no.</b>
	<b>Headphones with headband</b> Cable lengths 2 m	KH	FC005205
	<b>Connection cables PAT blue (replacement)</b> Cable lengths 35 cm	AK-PAT-BL-35	EI931506-C035
	<b>Connection cables PAT blue (replacement)</b> Cable lengths 50 cm	AK-PAT-BL-50	EI931506-C050
	<b>Connection cables PAT blue (replacement)</b> Cable lengths 2.8 m	AK-PAT-BL-280	EI931506-C
	<b>Connection cables BT-B red (replacement)</b> Cable lengths 35 cm	AK-BT-B	EI931573-A035
	<b>Connection cables BT-B red (replacement)</b> Cable lengths 50 cm	AK-BT-B	EI931573-A050
	<b>Connection cables BT-B red (replacement)</b> Cable lengths 2.8 m	AK-BT-B	EI931573-A
	<b>Connection cables BT-B red (replacement)</b> Cable lengths 3.5 m	AK5-BT-B	EI931573-A350
	<b>Connection cables BT-B red (replacement)</b> Cable lengths 5 m	AK5-BT-B	EI931573-A500
	<b>Software licence Secocare data</b>	SWP-IP/CD	21-1009109-01
	<b>Software licence Secocare data extension</b>	SWP-IP/CD-EXT	21-1009110-01
	<b>Mifare card</b>	MFC4C-CD	21-1002500-01

## 2.4 Connection modules

Connection modules with sockets act as the connecting piece between the hard-wired and exchangeable system components. This way, e.g. patient handsets, ward answering units, diagnostic devices, radio receivers can be connected or disconnected by the staff while the system is running.

Individual connection modules offer features such as a multimedia socket, a call and cancel pushbutton, or a basic interface respectively a C-bus interface for connecting Basic components respectively C-bus components, e.g. connection modules, pushbuttons or light module.

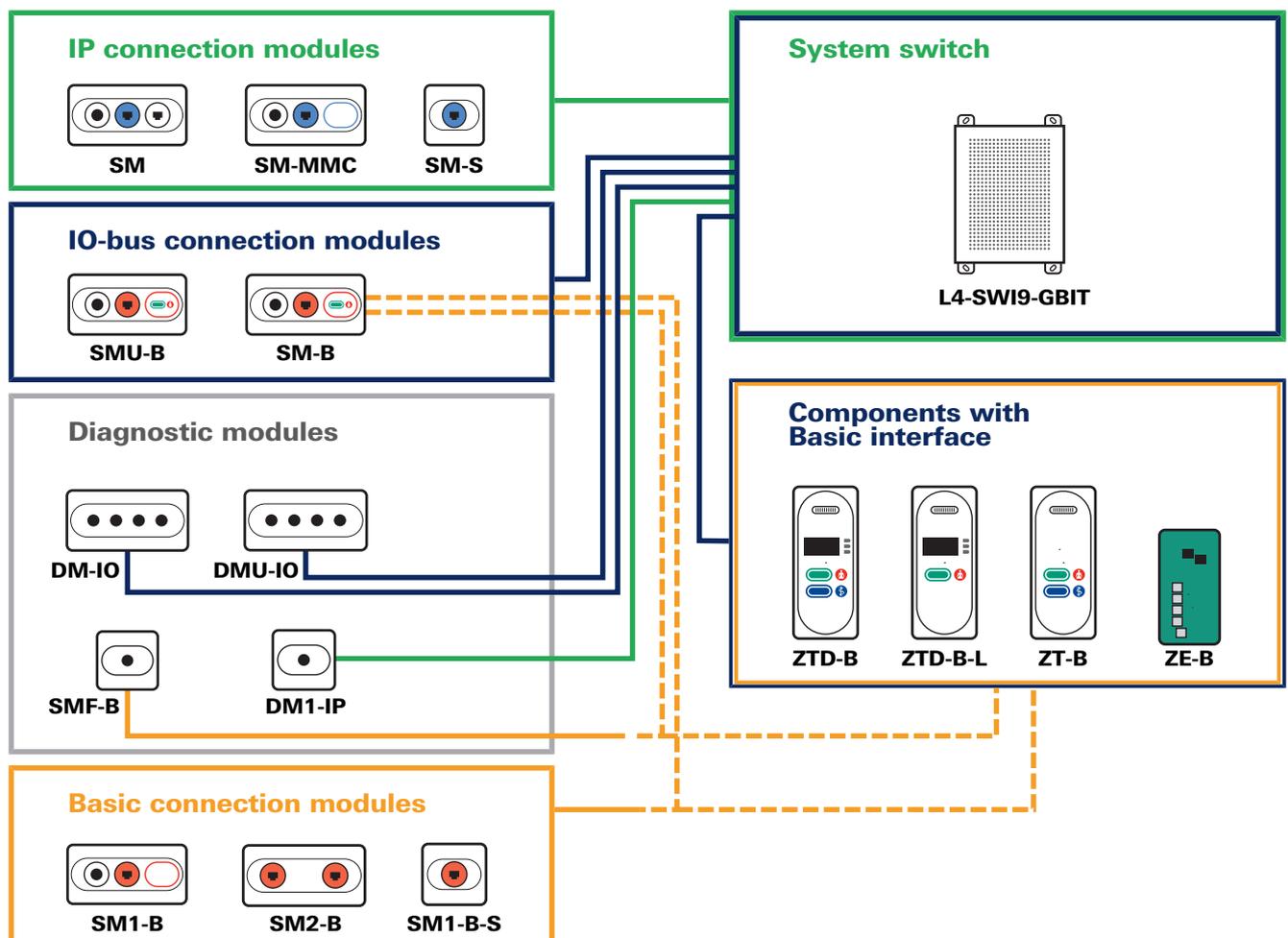
Connection modules can be broken down into two groups depending on their use:

- **Connection modules** are equipped with one or two Intellifix sockets for connecting patient handsets. The specially designed plug-in connection with auto disconnect mechanism minimises damage to the socket as well as to the connected connector and cable.

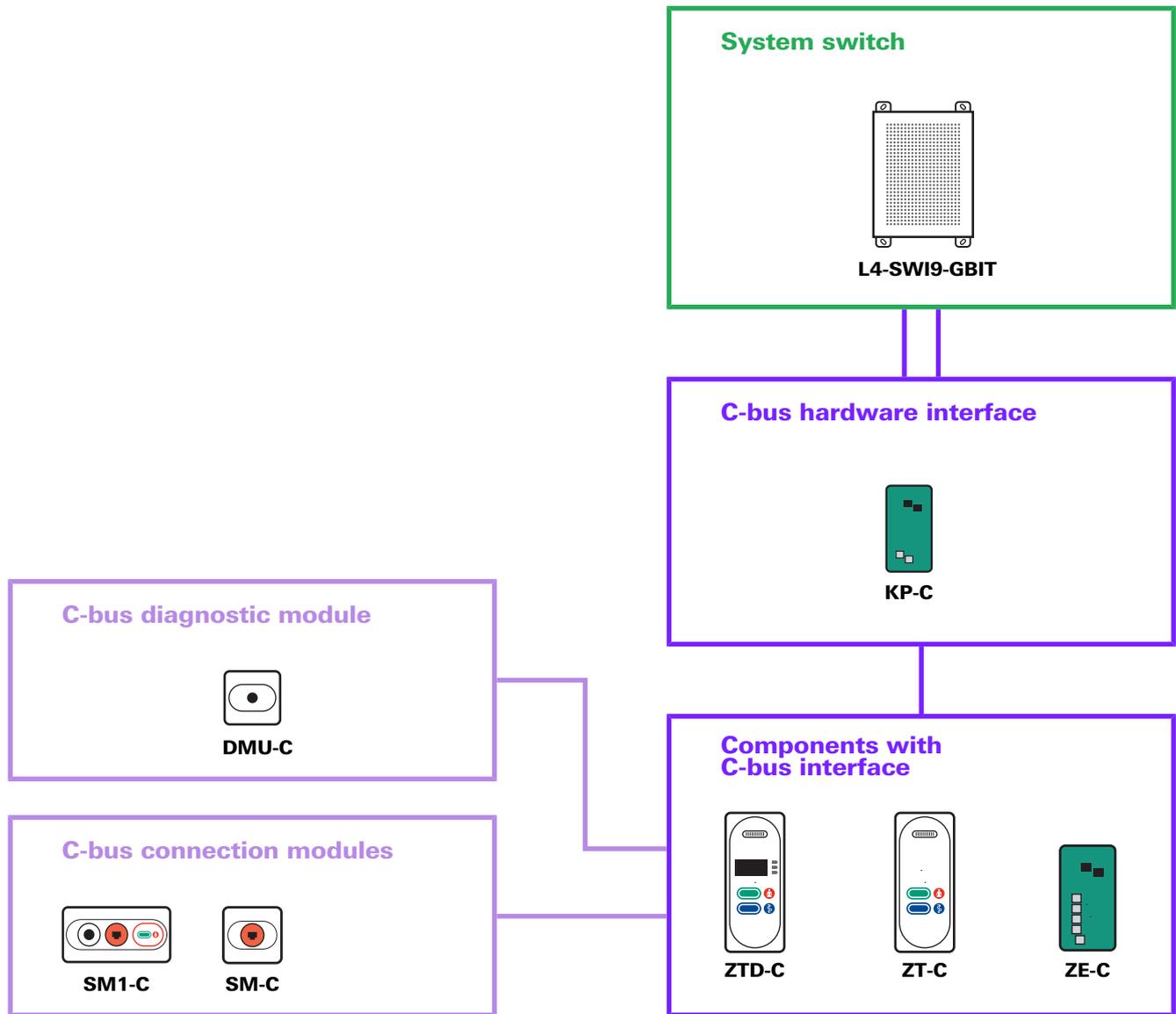
Some connection modules are equipped with a diagnostic socket for connection to additional instruments, diagnostic devices, for example. Connection modules can be broken down according to their type of system connection, i.e. in IP, Io-bus, C-bus and Basic connection modules.

- **Diagnostic modules** are equipped with one to four diagnostic sockets for connecting instruments such as diagnostic devices, contact mats, noise monitors to the system either via cable or a radio receiver.

System connection is implemented as outlined via an IP port, an Io-bus, a C-bus or a Basic interface, depending on the connection module.



Connection scheme connection modules



**Connection scheme C-bus connection modules**

## 2.4.1 Product overview

Features	SM	SM-MMC	SM-S	SM-B	SM-C	SMU-B	SM1-B	SM1-C	SM2-B	SM1-B-S	DM-IO	DMU-IO	DM1-IP	DMU-C	SMF-B
Diagnostic socket, not powered				•							•				
Diagnostic socket, powered	•	•			•	•	•					•	•	•	
Socket, only for radio receivers															•
Compatible with VR7-5 DIN-NT radio receiver	•	•		•	•	•	•				•	•	•	•	•
Compatible with VR7-5 radio receiver	•	•			•	•						•	•	•	•
Blue Intellifix socket for IP peripherals	•	•	•												
Red Intellifix socket for BT-B				•	•	•	•	•	•	•					
Multimedia socket	•	•													
Call and cancel pushbutton				•	•	•									
Connection to basic devices				•											
Separate power supply						•						•			•
Connection to SWI9 via IP port	•	•	•										•		
Connection to SWI9 via IO-bus				•		•					•	•			
Connection to basic interface							•		•	•					•
Connection to C-bus interface					•			•						•	

## SM connection module



No.: 21-1011500-01

Connection module with powered diagnostic socket, blue Intellifix socket and multimedia socket. Suitable for mounting in the bed head unit or for wall mounting.

For surface mounting, the corresponding APA-2 surface-mounted case is required; for flush mounting, a double switch box installed in the wall must be required. Generally installed in patient rooms, near the bed in the vicinity of the headboard.

- Diagnostic socket for the optional connection:
  - Diagnostic device with safe isolation in accordance with DIN EN 60601-1 (2 × MOPP)
  - Diagnostic adapter for contact mats, noise monitors etc.
  - Radio receiver (with or without power supply unit)
- Blue Intellifix socket for the optional connection:
  - Patient terminals
  - BT-IP pear pushbutton
  - Staff Terminals
- Front multimedia socket for network connections to a multimedia terminal. This must provide a safe isolation in accordance with DIN EN 60601-1 (2 × MOPP).
- Automatic input monitoring of the diagnostic socket and the Intellifix socket with automatic call release (disconnection call)

System compatibility	Visocall IP
Interfaces	
System connection	1 × RJ-45 socket for connection to the IP port of a SWI9 (LAN interface with PoE)
Diagnostic socket	1 × 5-pin DIN socket with power supply
Blue Intellifix socket	1 × RJ-45 socket with release mechanism (LAN interface with PoE)
Multimedia socket	1 × RJ-45 socket (only active when patient handset is connected)
Mounting	surface-mounted, flush-mounted or bed head unit
Degree of protection	IP32, VDE 0834 Environmental class II
Ambient temperature	+5 °C to +40 °C
Relative air humidity	up to 95 % without condensation
Case material	plastic/ASA
Case colour	white, RAL 9016
Dimensions	83 × 160 × 43 mm (H×W×D)
Weight	105 g

## SM-MMC connection module



No.: 21-1011501-01

Connection module with powered diagnostic socket, blue Intellifix socket and multimedia socket. Suitable for mounting in the bed head unit or for wall mounting.

For surface mounting, the corresponding APA-2 surface-mounted case is required; for flush mounting, a double switch box installed in the wall must be required. Generally installed in patient rooms, near the bed in the vicinity of the headboard.

- Diagnostic socket for the optional connection:
  - Diagnostic device with safe isolation in accordance with DIN EN 60601-1 (2 × MOPP)
  - Diagnostic adapter for contact mats, noise monitors etc.
  - Radio receiver (with or without power supply unit)
- Blue Intellifix socket for the optional connection:
  - Patient terminals
  - BT-IP pear pushbutton
  - Staff Terminals
- Rear multimedia socket for network connections to a multimedia terminal. This must provide a safe isolation in accordance with DIN EN 60601-1 (2 × MOPP).
- Automatic input monitoring of the diagnostic socket and the Intellifix socket with automatic call release (disconnection call)

System compatibility	Visocall IP
Interfaces	
System connection	1 × RJ-45 socket for connection to the IP port of a SWI9 (LAN interface with PoE)
Diagnostic socket	1 × 5-pin DIN socket with power supply
Blue Intellifix socket	1 × RJ-45 socket with release mechanism (LAN interface with PoE)
Multimedia socket	1 × RJ-45 socket (only active when patient handset is connected)
Mounting	surface-mounted, flush-mounted or bed head unit
Degree of protection	IP32, VDE 0834 Environmental class II
Ambient temperature	+5 °C to +40 °C
Relative air humidity	up to 95 % without condensation
Case material	plastic/ASA
Case colour	white, RAL 9016
Dimensions	83 × 160 × 43 mm (H×W×D)
Weight	105 g

## SM-S connection module



No.: 21-1011502-01

Connection module with blue Intellifix socket for installation in a bed head unit or for wall mounting.

For surface mounting, the corresponding APA-1 surface-mounted case is required; for flush mounting, a H1 cavity wall switch box installed in the wall is required. Generally installed in staff rooms as connection module for a Staff Terminal.



### NOTE

The connection module does not fit into the U1 flush-mounted switch box.

- Blue Intellifix socket for the optional connection:
  - Patient terminals
  - BT-IP pear pushbutton
  - Staff Terminals
- Automatic input monitoring of the Intellifix socket with automatic call release (disconnection call)

System compatibility	Visocall IP
Interfaces	
System connection	Insulation-displacement terminals for connection to the IP port of a SWI9 (LAN interface with PoE)
Blue Intellifix socket	1 × RJ-45 socket with release mechanism (LAN interface with PoE)
Mounting	surface-mounted, flush-mounted or bed head unit
Degree of protection	IP32, VDE 0834 Environmental class II
Ambient temperature	+5 °C to +40 °C
Relative air humidity	up to 95 % without condensation
Case material	plastic/ASA
Case colour	white, RAL 9016
Dimensions	80 × 83 × 38 mm (H×W×D)
Weight	57 g



No.: 21-1021500-01

## SM-B connection module

Connection module with diagnostic socket, red Intellifix socket, call and cancel pushbutton, and four ports for Basic components. Suitable for mounting in the bed head unit or for wall mounting.

For surface mounting, the corresponding APA-2 surface-mounted case is required; for flush mounting, a double switch box installed in the wall must be required. Generally installed in patient rooms, near the bed in the vicinity of the headboard.

- Diagnostic socket for the optional connection:
  - Diagnostic device with safe isolation in accordance with DIN EN 60601-1 (2 × MOPP)
  - Radio receiver (with power supply unit)
- Red Intellifix socket for Basic pear pushbutton
- Germ inhibiting membrane keypad with the following buttons:
  - Cancel button (green) with status LED
  - Call button (red) with locating and reassurance light
- Rear basic interface for the connection of
  - Basic connection modules
  - basic pushbuttons
  - LM-B light modules
  - SMF-B radio connection modules
- Automatic input monitoring of the diagnostic socket and the Intellifix socket with automatic call release (disconnection call)

System compatibility	Visocall IP
Interfaces	
System connection	2 × RJ-45 sockets for connection to the IO-bus of a SWI9 (RS-485 interface with power supply)
Diagnostic socket	1 × 5-pin DIN socket with power supply
Red Intellifix socket	1 × RJ-45 socket with release mechanism (basic interface with power supply)
Basic interface	4 × RJ-12 sockets with power supply
Mounting	surface-mounted, flush-mounted or bed head unit
Degree of protection	IP32, VDE 0834 Environmental class II
Ambient temperature	+5 °C to +40 °C
Relative air humidity	up to 95 % without condensation
Case material	plastic/ASA
Case colour	white, RAL 9016
Dimensions	83 × 160 × 43 mm (H×W×D)
Weight	124 g

## SM-C connection module



No.: 21-1041500-01

Connection module with diagnostic socket, red Intellifix socket, and call and cancel pushbutton. Suitable for mounting in the bed head unit or for wall mounting.

For surface mounting, the corresponding APA-2 surface-mounted case is required; for flush mounting, a double switch box installed in the wall must be required. Generally installed in patient rooms, near the bed in the vicinity of the headboard.

The component is a C-bus room component. It can be used in the course of upgrading a Visocall Plus system to Visocall IP with the existing wiring and is connected to the C-Bus/R.

- Diagnostic socket for the optional connection:
  - Diagnostic device, if galvanic isolation is required in accordance with VDE 0834, an AD-DIA must be interconnected.
  - Diagnostic adapter for contact mats, noise monitors etc.
  - Radio receiver (with or without power supply unit)
- Red Intellifix socket for Basic pear pushbutton
- Germ inhibiting membrane keypad with the following buttons:
  - Presence button (green) with status LED
  - Call button (red) with locating and reassurance light
- Automatic input monitoring of the diagnostic socket and the Intellifix socket with automatic call release (disconnection call)
- Up to four devices of the same type per room possible

System compatibility	Visocall IP, Visocall Plus
Interfaces	
Interfaces/system connection	4 × four-wire plug-in terminals (with power supply) for connection to the C-bus/R interface of a ZTD-C, ZT-C or ZE-C or for connecting further room C-bus components.
Diagnostic socket	1 × 5-pin DIN socket with power supply
Red Intellifix socket	1 × RJ-45 socket with release mechanism (basic interface with power supply)
Light control outputs	2 × four-wire plug-in terminals (Visocall Plus compatible)
Mounting	surface-mounted, flush-mounted or bed head unit
Degree of protection	IP30 (for VDE 0834 environmental class I, interconnect AD-DIA)
Ambient temperature	+5 °C to +40 °C
Relative air humidity	5 to 85% without condensation
Case material	plastic/ASA
Case colour	white, RAL 9016
Dimensions	83 × 160 × 41 mm (H×W×D)
Weight	124 g

## SMU-B connection module



No.: 21-1021501-01

Connection module with powered diagnostic socket, red Intellifix socket, and call and cancel pushbutton. Suitable for mounting in the bed head unit or for wall mounting.

For surface mounting, the corresponding APA-2 surface-mounted case is required; for flush mounting, a double switch box installed in the wall must be required. Generally installed in patient rooms, near the bed in the vicinity of the headboard.

- Diagnostic socket for the optional connection:
  - Diagnostic device with safe isolation in accordance with DIN EN 60601-1 (2 × MOPP)
  - Diagnostic adapter for contact mats, noise monitors etc.
  - Radio receiver (with or without power supply unit)
- Red Intellifix socket for Basic pear pushbutton
- Germ inhibiting membrane keypad with the following buttons:
  - Cancel button (green) with status LED
  - Call button (red) with locating and reassurance light
- Automatic input monitoring of the diagnostic socket and the Intellifix socket with automatic call release (disconnection call)

System compatibility	Visocall IP
Interfaces	
System connection	2 × RJ-45 sockets for connection to the IO-bus of a SWI9 (RS-485 interface with power supply)
24 V DC input	1 × rear screw-type terminal for power supply of the diagnostic socket
Diagnostic socket	1 × 5-pin DIN socket with power supply
Red Intellifix socket	1 × RJ-45 socket with release mechanism (basic interface with power supply)
Mounting	surface-mounted, flush-mounted or bed head unit
Degree of protection	IP32, VDE 0834 Environmental class II
Ambient temperature	+5 °C to +40 °C
Relative air humidity	up to 95 % without condensation
Case material	plastic/ASA
Case colour	white, RAL 9016
Dimensions	83 × 160 × 43 mm (H×W×D)
Weight	120 g

## SM1-B connection module



No.: 21-1031500-01

Connection module with diagnostic socket and red Intellifix socket. Suitable for mounting in the bed head unit or for wall mounting.

For surface mounting, the corresponding APA-2 surface-mounted case is required; for flush mounting, a double switch box installed in the wall must be required. Generally installed in patient rooms, near the bed in the vicinity of the headboard.

- Diagnostic socket for the optional connection:
  - Diagnostic device with safe isolation in accordance with DIN EN 60601-1 (2 × MOPP)
  - Radio receiver (with power supply unit)
- Red Intellifix socket for Basic pear pushbutton
- Automatic input monitoring of the diagnostic socket and the Intellifix socket with automatic call release (disconnection call)

System compatibility	Visocall IP
Interfaces	
System connection	2 × RJ-12 sockets for connection to the Basic interface of a ZTD-B, ZTD-B-L, ZT-B, ZE-B or SM-B
Diagnostic socket	1 × 5-pin DIN socket
Red Intellifix socket	1 × RJ-45 socket with release mechanism (basic interface with power supply)
Mounting	surface-mounted, flush-mounted or bed head unit
Degree of protection	IP32, VDE 0834 Environmental class II
Ambient temperature	+5 °C to +40 °C
Relative air humidity	up to 95 % without condensation
Case material	plastic/ASA
Case colour	white, RAL 9016
Dimensions	83 × 160 × 43 mm (H×W×D)
Weight	100 g

## SM2-B connection module



No.: 21-1031502-01

Connection module with two red Intellifix sockets for installation in a bed head unit or for wall mounting.

For surface mounting, the corresponding APA-2 surface-mounted case is required; for flush mounting, a double switch box installed in the wall must be required. Generally installed in patient rooms, near the bed in the vicinity of the headboard.

- Red Intellifix sockets for connecting two BT-B pear pushbuttons
- Automatic input monitoring of the Intellifix socket with automatic call release (disconnection call)

System compatibility	Visocall IP
Interfaces	
System connection	2 × RJ-12 sockets for connection to the Basic interface of a ZTD-B, ZTD-B-L, ZT-B, ZE-B or SM-B (with power supply)
Red Intellifix socket	1 × RJ-45 socket with release mechanism (basic interface with power supply)
Mounting	surface-mounted, flush-mounted or bed head unit
Degree of protection	IP32, VDE 0834 Environmental class II
Ambient temperature	+5 °C to +40 °C
Relative air humidity	up to 95 % without condensation
Case material	plastic/ASA
Case colour	white, RAL 9016
Dimensions	83 × 160 × 43 mm (H×W×D)
Weight	97 g

## SM1-B-S connection module



No.: 21-1031501-01

Connection module with red Intellifix socket for installation in a bed head unit or for wall mounting.

For surface mounting, the corresponding APA-1 surface-mounted case is required; for flush mounting, a H1 cavity wall switch box installed in the wall is required. Generally installed in patient rooms, near the bed in the vicinity of the headboard.



### NOTE

The connection module does not fit into the U1 flush-mounted switch box.

- Red Intellifix socket for Basic pear pushbutton
- Automatic input monitoring of the Intellifix socket with automatic call release (disconnection call)

System compatibility	Visocall IP
Interfaces	
System connection	1 × RJ-12 socket for connection to the Basic interface of a ZTD-B, ZTD-B-L, ZT-B, ZE-B or SM-B (with power supply)
Red Intellifix socket	1 × RJ-45 socket with release mechanism (basic interface with power supply)
Mounting	surface-mounted, flush-mounted or bed head unit
Degree of protection	IP32, VDE 0834 Environmental class II
Ambient temperature	+5 °C to +40 °C
Relative air humidity	up to 95 % without condensation
Case material	plastic/ASA
Case colour	white, RAL 9016
Dimensions	80 × 83 × 42 mm (H×W×D)
Weight	52 g

## SM1-C connection module



**No.: 21-1041501-01**

Connection module with red Intellifix socket for installation in a bed head unit or for wall mounting.

For surface mounting, the corresponding APA-1 surface-mounted case is required; for flush mounting, a H1 cavity wall switch box installed in the wall is required. Generally installed in patient rooms, near the bed in the vicinity of the headboard.

The component is a C-bus room component. It can be used in the course of upgrading a Visocall Plus system to Visocall IP with the existing wiring and is connected to the C-Bus/R.

- Red Intellifix socket for Basic pear pushbutton
- Automatic input monitoring of the Intellifix socket with automatic call release (disconnection call)
- Up to four devices of the same type per room possible

System compatibility	Visocall IP, Visocall Plus
Interfaces	
Interfaces/system connection	4 × four-wire plug-in terminals (with power supply) for connection to the C-bus/R interface of a ZTD-C, ZT-C or ZE-C or for connecting further room C-bus components.
Red Intellifix socket	1 × RJ-45 socket with release mechanism (basic interface with power supply)
Light control outputs	2 × four-wire plug-in terminals (Visocall Plus compatible)
Mounting	surface-mounted, flush-mounted or bed head unit
Degree of protection	IP30, VDE 0834 Environmental class I
Ambient temperature	+5 °C to +40 °C
Relative air humidity	5 to 85% without condensation
Case material	plastic/ASA
Case colour	white, RAL 9016
Dimensions	80 × 83 × 38 mm (H×W×D)
Weight	52 g

## DM-IO diagnostic module



**No.: 21-1021800-01**

Connection module with four diagnostic sockets for installation in a bed head unit or for wall-mounting.

For surface mounting, the corresponding APA-2 surface-mounted case is required; for flush mounting, a double switch box installed in the wall must be required. Generally installed in patient rooms, near the bed in the vicinity of the headboard.

- Diagnostic socket for the optional connection:
  - Diagnostic device with safe isolation in accordance with DIN EN 60601-1 (2 × MOPP)
  - Radio receiver (with power supply unit)
- Automatic input monitoring of the diagnostic socket with automatic call release (disconnection call)

System compatibility	Visocall IP
Interfaces	
System connection	2 × RJ-45 sockets for connection to the IO-bus of a SWI9 (RS-485 interface with power supply)
Diagnostic socket	4 × 5-pin DIN sockets without power supply
Mounting	surface-mounted, flush-mounted or bed head unit
Degree of protection	IP32, VDE 0834 Environmental class II
Ambient temperature	+5 °C to +40 °C
Relative air humidity	up to 95 % without condensation
Case material	plastic/ASA
Case colour	white, RAL 9016
Dimensions	83 × 160 × 38 mm (H×W×D)
Weight	157 g

## DMU-IO diagnostic module



**No.: 21-1021801-01**

Connection module with four powered diagnostic sockets for installation in a bed head unit or for wall mounting.

For surface mounting, the corresponding APA-2 surface-mounted case is required; for flush mounting, a double switch box installed in the wall must be required. Generally installed in patient rooms, near the bed in the vicinity of the headboard.

- Diagnostic socket for the optional connection:
  - Diagnostic device with safe isolation in accordance with DIN EN 60601-1 (2 × MOPP)
  - Diagnostic adapter for contact mats, noise monitors etc.
  - Radio receiver (with or without power supply unit)
- Automatic input monitoring of the diagnostic socket with automatic call release (disconnection call)

System compatibility	Visocall IP
Interfaces	
System connection	2 × RJ-45 sockets for connection to the IO-bus of a SWI9 (RS-485 interface with power supply)
24 V DC input	1 × rear screw-type terminal for power supply of the diagnostic socket
Diagnostic socket	4 × 5-pin DIN sockets with power supply
Mounting	surface-mounted, flush-mounted or bed head unit
Degree of protection	IP32, VDE 0834 Environmental class II
Ambient temperature	+5 °C to +40 °C
Relative air humidity	up to 95 % without condensation
Case material	plastic/ASA
Case colour	white, RAL 9016
Dimensions	83 × 160 × 38 mm (H×W×D)
Weight	165 g

## DM1-IP diagnostic module



**No.: 21-1011800-01**

Connection module powered diagnostic socket for installation in a bed head unit or for wall mounting.

For surface mounting, the corresponding APA-1 surface-mounted case is required; for flush mounting, a switch box installed in the wall must be required. Generally installed in patient rooms, near the bed in the vicinity of the headboard.

- Diagnostic socket for the optional connection:
  - Diagnostic device with safe isolation in accordance with DIN EN 60601-1 (2 × MOPP)
  - Diagnostic adapter for contact mats, noise monitors etc.
  - Radio receiver (with or without power supply unit)
- Automatic input monitoring of the diagnostic socket with automatic call release (disconnection call)

System compatibility	Visocall IP
Interfaces	
System connection	1 × RJ-45 socket for connection to the IP port of a SWI9 (LAN interface with PoE)
Diagnostic socket	1 × 5-pin DIN socket with power supply
Mounting	surface-mounted, flush-mounted or bed head unit
Degree of protection	IP32, VDE 0834 Environmental class II
Ambient temperature	+5 °C to +40 °C
Relative air humidity	up to 95 % without condensation
Case material	plastic/ASA
Case colour	white, RAL 9016
Dimensions	80 × 83 × 36 mm (H×W×D)
Weight	69 g

## DMU-C diagnostic module



**No.: 21-1041801-01**

Connection module powered diagnostic socket for installation in a bed head unit or for wall mounting.

For surface mounting, the corresponding APA-1 surface-mounted case is required; for flush mounting, a switch box installed in the wall must be required. Generally installed in patient rooms, near the bed in the vicinity of the headboard.

The component is a C-bus room component. It can be used in the course of upgrading a Visocall Plus system to Visocall IP with the existing wiring and is connected to the C-Bus/R.

- Diagnostic socket for the optional connection:
  - Diagnostic device, if galvanic isolation is required in accordance with VDE 0834, an AD-DIA must be interconnected.
  - Diagnostic adapter for contact mats, noise monitors etc.
  - Radio receiver (with or without power supply unit)
- Automatic input monitoring of the diagnostic socket with automatic call release (disconnection call)
- Up to four devices of the same type per room possible

System compatibility	Visocall IP, Visocall Plus
Interfaces	
Interfaces/system connection	4 × four-wire plug-in terminals (with power supply) for connection to the C-bus/R interface of a ZTD-C, ZT-C or ZE-C or for connecting further room C-bus components.
Diagnostic socket	1 × 5-pin DIN socket with power supply
Mounting	surface-mounted, flush-mounted or bed head unit
Degree of protection	IP30 (for VDE 0834 environmental class I, interconnect AD-DIA)
Ambient temperature	+5 °C to +40 °C
Relative air humidity	5 to 85% without condensation
Case material	plastic/ASA
Case colour	white, RAL 9016
Dimensions	80 × 83 × 30 mm (H×W×D)
Weight	69 g

**No.: 21-1031800-01**

## SMF-B connection module radio components

Connection module with powered socket for the connection of a radio receiver. Suitable for mounting in the bed head unit or for wall mounting.

For surface mounting, the corresponding APA-1 surface-mounted case is required; for flush mounting, a switch box installed in the wall must be required. Generally installed in patient rooms, near the bed in the vicinity of the headboard.

- Diagnostic socket for connecting a radio receiver (with or without a power supply unit)
- Automatic input monitoring of the diagnostic socket with automatic call release (disconnection call)

System compatibility	Visocall IP
Interfaces	
System connection	1 × RJ-12 socket for connection to the Basic interface of a ZTD-B, ZTD-B-L, ZT-B, ZE-B or SM-B
24 V DC input	1 × rear screw-type terminal for power supply of the diagnostic socket
Diagnostic socket	1 × 5-pin DIN socket with power supply
Mounting	surface-mounted, flush-mounted or bed head unit
Degree of protection	IP32, VDE 0834 Environmental class II
Ambient temperature	+5 °C to +40 °C
Relative air humidity	up to 95 % without condensation
Case material	plastic/ASA
Case colour	white, RAL 9016
Dimensions	80 × 83 × 29 mm (H×W×D)
Weight	73 g

## AD-DIA diagnostic adapter



**No.: 21-1002000-01**

Accessories for the connection of a non-system, call-releasing device to a diagnostic socket. The diagnostic adapter provides for a galvanic isolation between the connected device and the call system.

- Galvanic isolation between the connected device (contact mat, noise monitor, breathing sensor, etc.) and the call system
- Internal DIP switch for configuration of the call release in case of normally open contact or normally closed contact
- Internal terminal resistor, removable, for circuit monitoring with external 475 Ohm parallel to switching contact
- Bed call when releasing the external device
- Automatic input monitoring of the diagnostic socket with automatic call release (disconnection call)

System compatibility	Visocall IP
Operating voltage range	20 to 30 V DC
Current consumption	4 mA with 76 mW typ.
Interfaces	
System connection	1 × 5-pin DIN connector for connection to a supplied diagnostic socket of a SM, SM-MMC, SMU-B, DMU-IO or DM1-IP
Device connection	1 × 2-wire cable with open ends for the connection of an external device such as a contact mat, noise monitor, breathing sensor, etc.
Degree of protection	IP32, VDE 0834 Environmental class II
Ambient temperature	+5 °C to +40 °C
Relative air humidity	up to 95 % without condensation
Connector sheath material	Plastic
Connector sheath colour	black
Connection cables	approx. 2.5 m with open cable ends
Case material	plastic/ASA
Case colour	white, RAL 9016
Dimensions	41 × 99 × 25 mm (H×W×D)
Weight	114 g

## DSTK-W-VCIP diagnostic connections



**No.: FC010350**

Accessories for the connection of a diagnostic device to a diagnostic socket. The diagnostic device must provide a safe isolation in accordance with DIN EN 60601-1 (2 × MOPP).

- Diagnostic socket for the optional connection:
  - Diagnostic device with safe isolation in accordance with DIN EN 60601-1 (2 × MOPP)
- With connection diagram and resistance for circuit monitoring
- Diagnostic call when releasing the external device
- Automatic input monitoring of the diagnostic socket with automatic call release (disconnection call)

System compatibility	Visocall IP
Interfaces	
System connection	1 × 5-pin DIN connector for connection to a diagnostic socket of a SM, SM-MMC, SMU-B, SM1-B, DMU-IO or DM1-IP
Device connection	1 × 2-wire cable with open ends for the connection of a diagnostic device, providing for a safe isolation in accordance with DIN EN 60601-1 (2 × MOPP)
Ambient temperature	up to +60 °C
Connector sheath material	Metal
Cable sheath material	PVC
Cable sheath colour	white
Wire	2 × 0.75 mm <sup>2</sup> , fine-wire, flexible
Cable length	approx. 2.5 m
Weight	123 g

## Connection modules and accessories

	Designation	Type	Article no.
	<b>SM connection module</b>	SM	21-1011500-01
	<b>SM-MMC connection module</b>	SM-MMC	21-1011501-01
	<b>SM-S connection module</b>	SM-S	21-1011502-01
	<b>SM-B connection module</b>	SM-B	21-1021500-01
	<b>SM-C connection module</b>	SM-C	21-1041500-01
	<b>SMU-B connection module</b>	SMU-B	21-1021501-01
	<b>SM1-B connection module</b>	SM1-B	21-1031500-01
	<b>SM1-C connection module</b>	SM1-C	21-1041501-01
	<b>SM2-B connection module</b>	SM2-B	21-1031502-01
	<b>SM1-B-S single connection module</b>	SM1-B-S	21-1031501-01
	<b>DM-IO diagnostic module</b>	DM-IO	21-1021800-01
	<b>DMU-IO diagnostic module</b>	DMU-IO	21-1021801-01
	<b>DM1-IP diagnostic module</b>	DM1-IP	21-1011800-01
	<b>DMU-C diagnostic module</b>	DMU-C	21-1041801-01
	<b>SMF-B connection module radio components</b>	SMF-B	21-1031800-01
	<b>AD-DIA diagnostic adapter</b>	AD-DIA	21-1002000-01
	<b>Diagnostic connections</b>	DSTK-W-VCIP	FC010350
	<b>Support plate for connection modules red</b> Spare part for SM-B, SM1-B, SMU-B	SM-B-CP	21-1021900-01

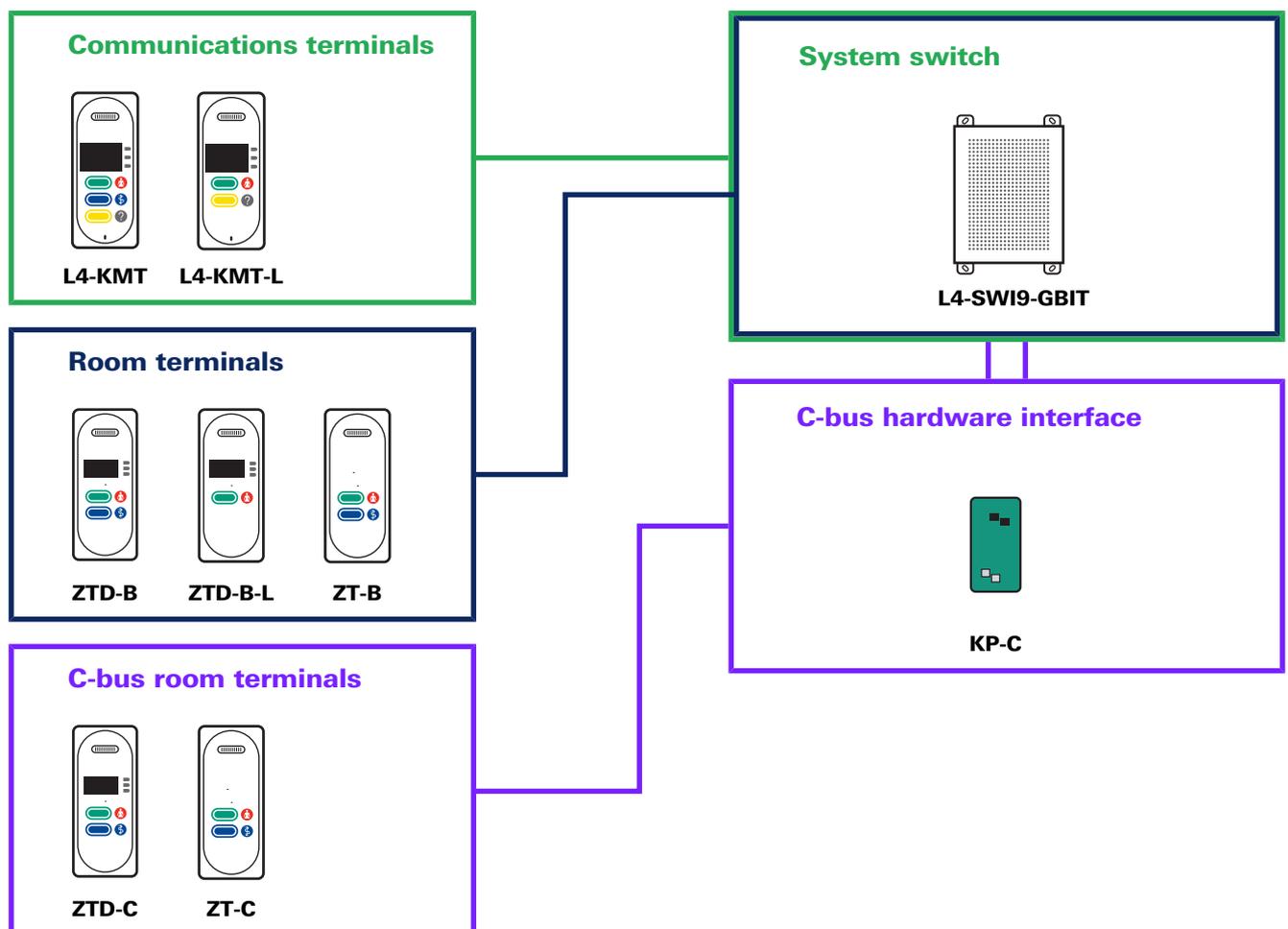
	<b>Designation</b>	<b>Type</b>	<b>Article no.</b>
	<b>Support plate for connection module SM</b> Spare part	SM-CP	21-1011900-01
	<b>Support plate for connection module SM-MMC</b> Spare part	SM-MMC-CP	21-1011901-01
	<b>Cover for SM</b> Spare part	SM-COV	21-1011920-01
	<b>Cover for SM-B</b> Spare part	SM-B-COV	21-1021920-01
	<b>Blind cover, connection module, 10 pcs.</b> For multimedia and diagnostic sockets, not suited for Intellifix sockets!	BLA-SM	FC010295
	<b>AP-1 surface-mounted case</b>	APA-1	21-1002021-01
	<b>AP-2 surface-mounted case</b>	APA-2	21-1002022-01
	<b>Flush-mounted switch box</b>	U1	FC88010
	<b>Flush-mounted switch box</b> for brick walls, 60x66 mm (DxH)	U1 66	21-2400003-01
	<b>Cavity wall switch box, round</b>	H1	21-2400000-01
	<b>Cavity wall switch box</b> 68x62 mm (DxH)	H1 62	21-2400002-01
	<b>Double flush-mounted switch box</b>	U2	FC88012
	<b>Double cavity wall switch box</b>	H2	FC88013

## 2.5 Terminals

Terminals are designed for use by the staff. They are installed in the entrance area of rooms so that presences can be set when entering the room and deactivated when leaving the room. They are designed for releasing and cancelling calls and optionally also for the acoustic signalling of call forwarding.

- Communication terminals are equipped with presence buttons, a call button or optionally a doctor call button, an integrated loudspeaker and a microphone for communication and a display.
- Room terminals are equipped with presence buttons, a call button or optionally a doctor call button as well as a sound generator for the acoustic signalling in From of call forwarding. Depending on the model, the device may also be equipped with a display. In contrast to communication terminals, it is possible to connect basic components or C-bus components.

The system connection is implemented as outlined via an IP port, IO-bus or a C-bus hardware interface, depending on the terminal.



Connection scheme terminals

## 2.5.1 Product overview

Features	L4-KMT	L4-KMT-L	ZTD-B	ZTD-B-L	ZT-B	ZTD-C	ZT-C
Green presence button	•	•	•	•	•	•	•
Blue presence button	•		•		•	•	•
Yellow presence button	•	•					
Presences via RFID card							
Call button	•	•	•	•	•	•	•
Doctor call button	•		•		•	•	•
Configurable special call							
Call forwarding	•	•	•	•	•	•	•
Call answering	•	•					
Setting reminder modes	•	•					
Announcements	•	•					
Display	•	•	•	•		•	
Timer function	•	•					
Radio operation	•	•					
Connection to basic devices			•	•	•		
Connection of C-bus devices						•	•
Connection to SWI9 via IP port	•	•					
Connection to SWI9 via IO-bus			•	•	•		
Connection to SWI9 via C-bus hardware interface KP-C						•	•

## L4-KMT communications terminal



No.: 21-1010010-01

IP terminal with acoustic and visual call forwarding, display, two call and three presence buttons as well as for speech connection, suitable for wall mounting.



### NOTE

Supported starting from Visocall IP software version 7.1

Generally installed (wall mounting) in patient rooms and common rooms. For surface mounting, the corresponding AP-KMT surface-mounted frame is required; for flush mounting of the DR-KMT case frames, a double switch box installed in the wall must be provided.

System compatibility	Visocall IP, from software 7.1
Operating voltage range	20 to 30 V DC
Current consumption	50 mA with 1200 mW typ.
Interfaces	
System connection	1 × RJ-45 socket for connection to the IP port of a SWI9 (LAN interface with PoE)
Multimedia socket	1 × RJ-45 socket
Output power screw terminal loudspeaker	approx. 125 mW with 8 Ω
Display	fully graphic LC display (128 × 64 pixels) with backlight
Mounting	Surface or flush-mounted
Degree of protection	IP32, VDE 0834 Environmental class II
Ambient temperature	+5 °C to +40 °C
Relative air humidity	up to 95 % without condensation
Case material	plastic/ASA
Case colour	white, RAL 9016
Dimensions	205 × 87 × 24 mm (H×W×D)
Weight	210 g

## L4-KMT-L communications terminal Light



No.: 21-1010011-01

IP terminal with acoustic and optical call forwarding, display, call and presence buttons and for speech connection.



### NOTE

Supported starting from Visocall IP software version 7.1

Generally installed (wall mounting) in patient rooms and common rooms. For surface mounting, the corresponding AP-KMT surface-mounted frame is required; for flush mounting of the DR-KMT case frames, a double switch box installed in the wall must be provided.

System compatibility	Visocall IP, from software 7.1
Operating voltage range	20 to 30 V DC
Current consumption	50 mA with 1200 mW typ.
Interfaces	
System connection	1 × RJ-45 socket for connection to the IP port of a SWI9 (LAN interface with PoE)
Multimedia socket	1 × RJ-45 socket
Output power screw terminal loudspeaker	approx. 125 mW with 8 Ω
Display	fully graphic LC display (128 × 64 pixels) with backlight
Mounting	Surface or flush-mounted
Degree of protection	IP32, VDE 0834 Environmental class II
Ambient temperature	+5 °C to +40 °C
Relative air humidity	up to 95 % without condensation
Case material	plastic/ASA
Case colour	white, RAL 9016
Dimensions	205 × 87 × 24 mm (H×W×D)
Weight	210 g

## ZTD-B room terminal with display



No.: 21-1020000-01

Terminal with acoustic and optical call forwarding, display, two call and two presence buttons and five RJ-12 connectors for basic components.

Generally installed (wall mounting) in patient rooms and common rooms. For surface mounting, the corresponding AP-KMT surface-mounted frame is required; for flush mounting of the DR-KMT case frames, a double switch box installed in the wall must be provided.

- Call forwarding with set presences
- Integrated sound generator for signalling in case of call forwarding
- Integrated LC-display with backlight
- Germ inhibiting membrane keypad with the following buttons:
  - Presence button (green) with status LED
  - Presence button (blue) with status LED
  - Call button (red) with locating and reassurance light
  - Doctor call button optionally configurable as Code Blue (blue) with reassurance light
  - Three interactive function buttons

System compatibility	Visocall IP
Operating voltage range	15 to 30 V DC
Current consumption	11.3 mA with 215 mW typ.
Interfaces	
System connection	2 × RJ-45 sockets for connection to the IO-bus of a SWI9 (RS-485 interface with power supply)
Basic interface	5 × RJ-12 sockets via which the Basic components can be connected to the system
Display	fully graphic LC display (128 × 64 pixels) with backlight
Mounting	Surface or flush-mounted
Degree of protection	IP32, VDE 0834 Environmental class II
Ambient temperature	+5 °C to +40 °C
Relative air humidity	up to 95 % without condensation
Case material	plastic/ASA
Case colour	white, RAL 9016
Dimensions	205 × 87 × 25 mm (H×W×D)
Weight	171 g

## ZTD-B-L room terminal with display



No.: 21-1020001-01

Terminal with acoustic and optical call forwarding, display, call and presence buttons and five RJ-12 connectors for basic components.

Generally installed (wall mounting) in patient rooms and common rooms. For surface mounting, the corresponding AP-KMT surface-mounted frame is required; for flush mounting of the DR-KMT case frames, a double switch box installed in the wall must be provided.

- Call forwarding with set presences
- Integrated sound generator for signalling in case of call forwarding
- Integrated LC-display with backlight
- Germ inhibiting membrane keypad with the following buttons:
  - Presence button (green) with status LED
  - Call button (red) with locating and reassurance light
  - Three interactive function buttons

System compatibility	Visocall IP
Operating voltage range	15 to 30 V DC
Current consumption	11.3 mA with 215 mW typ.
Interfaces	
System connection	2 × RJ-45 sockets for connection to the IO-bus of a SWI9 (RS-485 interface with power supply)
Basic interface	5 × RJ-12 sockets via which the Basic components can be connected to the system
Display	fully graphic LC display (128 × 64 pixels) with backlight
Mounting	Surface or flush-mounted
Degree of protection	IP32, VDE 0834 Environmental class II
Ambient temperature	+5 °C to +40 °C
Relative air humidity	up to 95 % without condensation
Case material	plastic/ASA
Case colour	white, RAL 9016
Dimensions	205 × 87 × 25 mm (H×W×D)
Weight	171 g

## ZT-B room terminal without display



No.: 21-1020002-01

Terminal with acoustic call forwarding, two call and two presence buttons as well as five RJ-12 connectors for basic components.

Generally installed (wall mounting) in patient rooms and common rooms. For surface mounting, the corresponding AP-KMT surface-mounted frame is required; for flush mounting of the DR-KMT case frames, a double switch box installed in the wall must be provided.

- Call forwarding with set presences
- Integrated sound generator for signalling in case of call forwarding
- Germ inhibiting membrane keypad with the following buttons:
  - Presence button (green) with status LED
  - Presence button (blue) with status LED
  - Call button (red) with locating and reassurance light
  - Doctor call button optionally configurable as Code Blue (blue) with reassurance light

System compatibility	Visocall IP
Operating voltage range	15 to 30 V DC
Current consumption	11.3 mA with 215 mW typ.
Interfaces	
System connection	2 × RJ-45 sockets for connection to the IO-bus of a SWI9 (RS-485 interface with power supply)
Basic interface	5 × RJ-12 sockets via which the Basic components can be connected to the system
Mounting	Surface or flush-mounted
Degree of protection	IP32, VDE 0834 Environmental class II
Ambient temperature	+5 °C to +40 °C
Relative air humidity	up to 95 % without condensation
Case material	plastic/ASA
Case colour	white, RAL 9016
Dimensions	205 × 87 × 25 mm (H×W×D)
Weight	155 g

## ZTD-C room terminal with display



No.: 21-1040000-01

Terminal with acoustic and optical call forwarding, display, call and presence buttons, C-bus/W connection and C-bus/R connections for up to eight C-bus room devices.

C-bus components can be connected via existing Visocall Plus cabling (or similar topologies) to a ZTD-C, ZT-C or ZE-C, or from there via a KP-C to the SWI9 of a Visocall IP system. This way, existing Visocall Plus systems can be upgraded to Visocall IP.

For the signal lines, the usual plug-in terminals for Visocall Plus are used.

- Call forwarding with set presences
- Integrated sound generator for signalling in case of call forwarding
- Integrated LC-display with backlight
- Germ inhibiting membrane keypad with the following buttons:
  - Presence button (green) with status LED
  - Presence button (blue) with status LED
  - Call button (red) with locating and reassurance light
  - Doctor call button optionally configurable as Code Blue (blue) with reassurance light
  - Three interactive function buttons

System compatibility	Visocall IP, Visocall Plus
Operating voltage range	17 to 27.5 V DC
24 V DC input	1 x two-pin Phoenix SMSTBA-2.5/2-G-5.08 strip
Current consumption	max. 21 mA with 500 mW typ.
Interfaces	
System connection (C-bus/W)	5 x four-wire plug-in terminals for connection to a KP-C or another ZTD-C/ZT-C/ZE-C
C-bus/R interface	2 x 4 x four-wire plug-in terminal
Display	fully graphic LC display (128 x 64 pixels) with backlight
Mounting	Surface or flush-mounted
Degree of protection	IP30, VDE 0834 Environmental class I
Ambient temperature	+5 °C to +40 °C
Relative air humidity	5 to 85% without condensation
Case material	plastic/ASA
Case colour	white, RAL 9016
Dimensions	206 x 88 x 18 mm (HxWxD)
Weight	171 g

## ZT-C room terminal without display



**No.: 21-1040002-01**

Terminal with acoustic call forwarding, call and presence buttons, C-bus/W connection and C-bus/R connections for up to eight C-bus room devices.

C-bus components can be connected via existing Visocall Plus cabling (or similar topologies) to a ZTD-C, ZT-C or ZE-C, or from there via a KP-C to the SWI9 of a Visocall IP system. This way, existing Visocall Plus systems can be upgraded to Visocall IP.

For the signal lines, the usual plug-in terminals for Visocall Plus are used.

- Call forwarding with set presences
- Integrated sound generator for signalling in case of call forwarding
- Germ inhibiting membrane keypad with the following buttons:
  - Presence button (green) with status LED
  - Presence button (blue) with status LED
  - Call button (red) with locating and reassurance light
  - Doctor call button optionally configurable as Code Blue (blue) with reassurance light

System compatibility	Visocall IP, Visocall Plus
Operating voltage range	17 to 27.5 V DC
24 V DC input	1 × two-pin Phoenix SMSTBA-2.5/2-G-5.08 strip
Current consumption	max. 21 mA with 500 mW typ.
Interfaces	
System connection (C-bus/W)	5 × four-wire plug-in terminals for connection to a KP-C or another ZTD-C/ZT-C/ZE-C
C-bus/R interface	2 × 4 × four-wire plug-in terminal
Mounting	Surface or flush-mounted
Degree of protection	IP30, VDE 0834 Environmental class I
Ambient temperature	+5 °C to +40 °C
Relative air humidity	5 to 85% without condensation
Case material	plastic/ASA
Case colour	white, RAL 9016
Dimensions	206 × 88 × 18 mm (H×W×D)
Weight	154 g

## Terminals and accessories

	Designation	Type	Article no.
	<b>L4-KMT communications terminal</b>	L4-KMT	21-1010010-01
	<b>L4-KMT-L communications terminal Light</b>	L4-KMT-L	21-1010011-01
	<b>ZTD-B room terminal with display</b>	ZTD-B	21-1020000-01
	<b>ZTD-B-L room terminal with display</b>	ZTD-B-L	21-1020001-01
	<b>ZT-B room terminal without display</b>	ZT-B	21-1020002-01
	<b>Room terminal with display</b>	ZTD-C	21-1040000-01
	<b>Room terminal without display</b>	ZT-C	21-1040002-01
	<b>Surface mounted frame</b> for communication and room terminals	AP-KMT	FC010190
	<b>Surface-mounted frame room terminal</b> for KMT, KMT-L, ZTD-B, ZTD-B-L, ZT-B, ZTD-C	AP-ZTD	21-1002020-01
	<b>Box frame</b> for communication and room terminals	DR-KMT	FC010191
	<b>Flush-mounted switch box</b>	U1	FC88010
	<b>Flush-mounted switch box</b> for brick walls, 60x66 mm (DxH)	U1 66	21-2400003-01
	<b>Cavity wall switch box, round</b>	H1	21-2400000-01
	<b>Cavity wall switch box</b> 68x62 mm (DxH)	H1 62	21-2400002-01

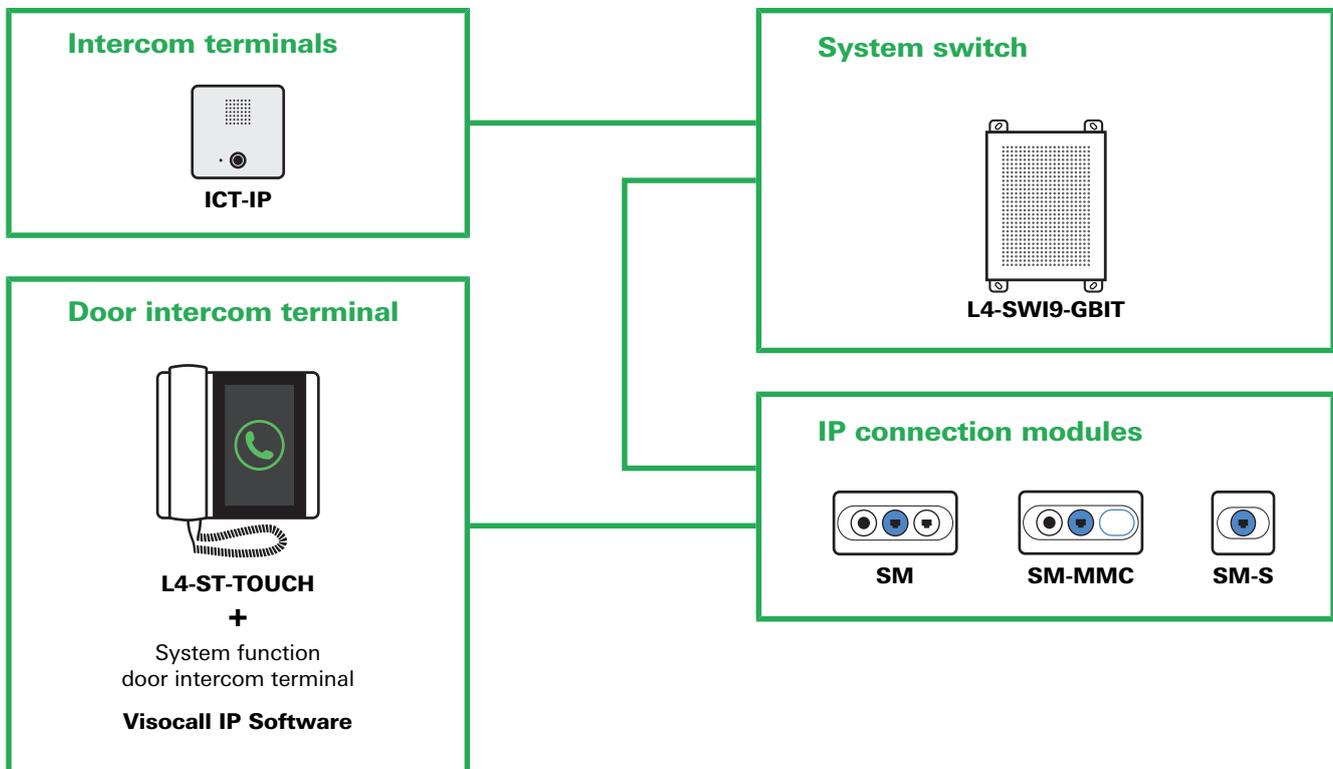
	<b>Designation</b>	<b>Type</b>	<b>Article no.</b>
	<b>Double flush-mounted switch box</b>	U2	FC88012
	<b>Double cavity wall switch box</b>	H2	FC88013

## 2.6 Intercom terminals

Intercom terminals are devices designed for establishing a speech connection simply by pressing a button. The ICT-IP intercom terminal is especially robust and is mounted permanently in a wall. By pressing the integrated button, a call is released in the Visocall IP system. By call answering, a speech connection can be built up to the terminal. The device is suited as door intercom terminal in weatherproof outdoor areas.

The system function: Door intercom terminal enables a staff terminal to be used as a intercom terminal in a similar way. The configuration does not require the installation of special hardware, but can be realised for any IP connection modules. Connected staff terminals display a special operating interface, which can be used to build up a direct speech connection to a predefined patient terminal. A eavesdropping protection can be set up for the protection of the patient. The door intercom terminal is especially suited for visitors of patients in quarantine.

System connection is implemented as outlined, depending on the device, either directly to a system switch or an IP connection module.



Connection scheme intercom terminals

## 2.6.1 Product overview

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Features	ICT-IP	Door intercom terminal
Use in wet environments	•	
Robust stainless steel case	•	
Freely configurable call button	•	
Touch display for indication and operation		•
Hands free function	•	•
Receiver for one-to-one calls		•
Volume adjustment on the device		•

## ICT-IP intercom Terminal



**No.: 21-1010400-01**

Especially robust stainless steel IP terminal for flush mounting for use as door intercom. A pre-defined call is activated by pressing the integrated button, a speech connection can be established by call answering.

By pressing the integrated button, a predefined call is released. By call answering, a speech connection can be built up to the terminal. For door intercom terminals, an input/output module can be used for opening doors.

For flush mounting, a U-ICT-IP or H-ICT-IP switch box installed in the wall is required. Due to its moisture-proof circuit board and the robust design, the device is typically used as door intercom terminal in weatherproof outdoor areas.

- For use in wet environments
- Robust stainless steel case
- Integrated loudspeaker and microphone
- Stainless steel panel with freely configurable call button made of stainless steel with locating and reassurance light

System compatibility	Visocall IP
Operating voltage range	20 to 30 V DC
Current consumption	82.6 mA with 1900 mW typ.
Interfaces	
System connection	1 × RJ-45 socket for connection to the IP port of a SWI9 (LAN interface with PoE)
Mounting	Flush-mounted
Degree of protection	IP42, VDE 0834 Environmental class II
Ambient temperature	−25 °C to +55 °C
Relative air humidity	up to 95 %
Case material	Stainless steel
Dimensions	120 × 120 × 32 mm (H×W×D)
Weight	446 g

## Door intercom terminal



**No.: 21-1010510-01**

The system function door intercom terminal enables the use of a staff terminal for direct communication with a predefined device (for example patient terminal). A door intercom terminal is especially suited for quarantine situations. Via the intuitive operating interface, visitors can build up a speech connection with a predefined patient without assistance by the staff. A eavesdropping protection can be set up for the protection of the patient.



### **NOTE**

Supported starting from Visocall IP software version 6.0

## Intercom terminals and accessories

	Designation	Type	Article no.
	<b>Intercom terminal</b>	ICT-IP	21-1010400-01
	<b>Staff terminal</b>	L4-ST-TOUCH	21-1010510-01
	<b>Visocall IP Software</b>	SWP-IP/AK-10.0	21-1009004-01
	<b>Input/output module IO-M</b>	IO-M	21-1023000-01
	<b>Input/output module IO-M-P</b>	IO-M-P	21-1023001-01
	<b>Flush-mounted switch box</b>	U-ICT-IP	FC88019
	<b>Cavity wall switch box</b>	H-ICT-IP	FC88018

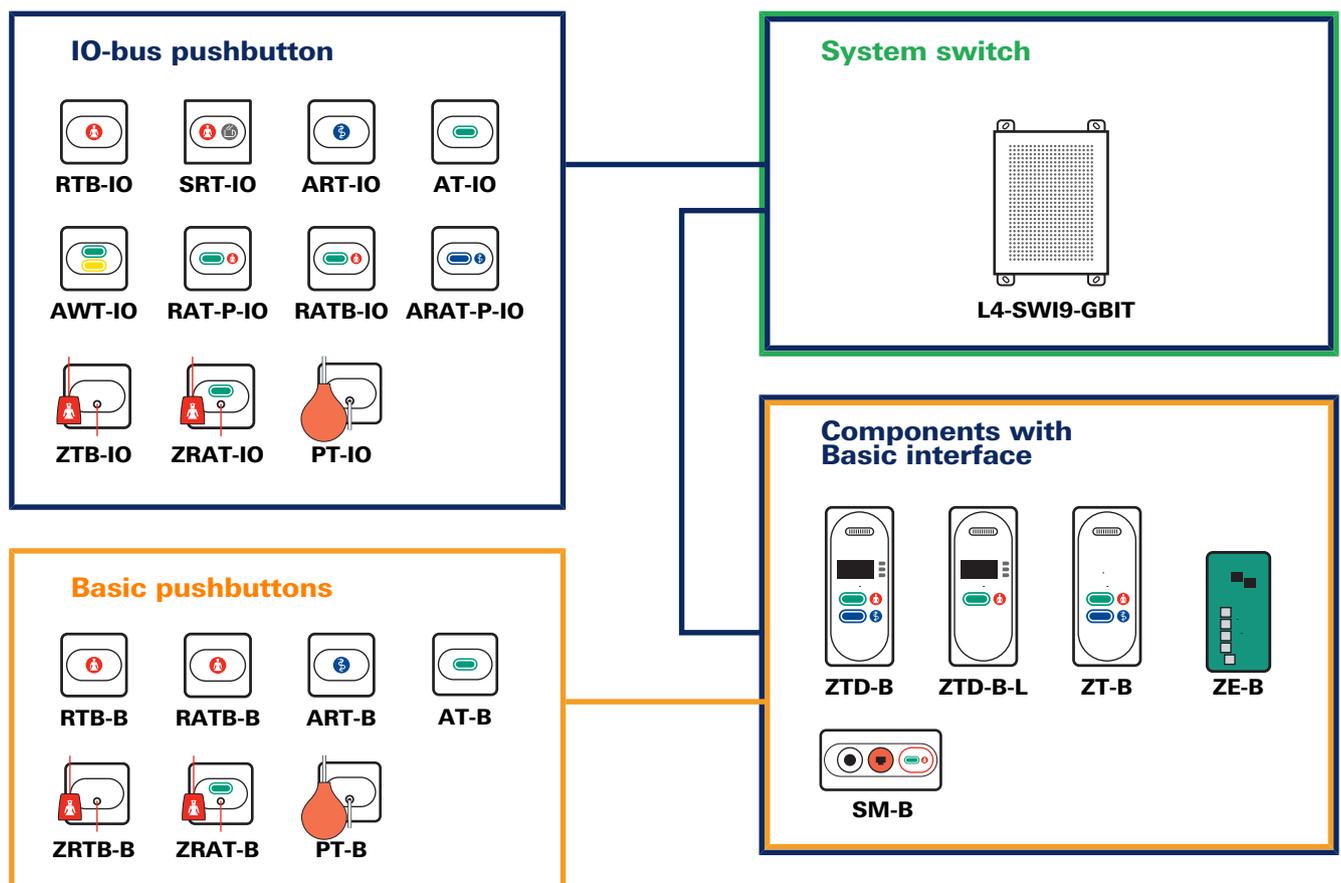
## 2.7 Pushbuttons

Pushbuttons are devices which - depending on the version - are designed for setting and deactivating presences, releasing or cancelling calls. Models with integrated sound generators are also suited for the acoustic signalling call forwarding. Due to the standardised design of the cases, the outward appearance of the pushbutton models only differs with regard to the front membrane keypad, the pull cord or a pneumatic element. The easy to clean, germ inhibiting membrane keypad and the design without indentations optimise the pushbuttons for use under circumstances with special hygiene requirements. Pushbuttons with call button, doctor call button or service call button are equipped with a locating and reassurance light and therefore suited for use in the dark.

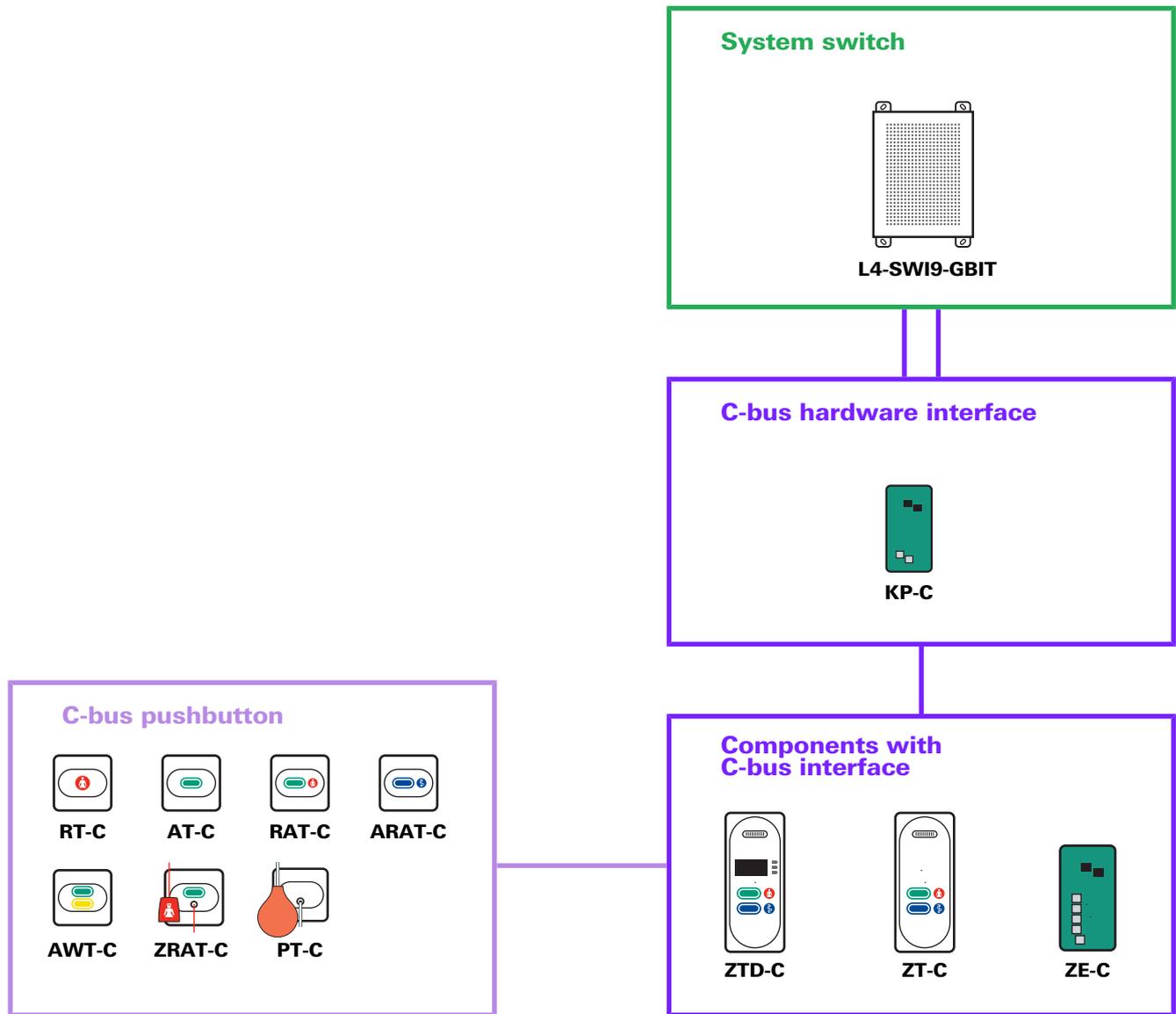
Pushbutton models can be broken down into two groups depending on their connection options:

- IO-bus pushbuttons are connected to the IO-bus of a system switch. Some of these pushbuttons are also available as a Basic or a C-bus variant.
- Basic pushbuttons are connect to a basic interface and look identical to the corresponding IO-bus pushbutton.
- C-bus pushbuttons are connect to a C-bus interface and look identical to the corresponding IO-bus pushbutton.

The system connection is implemented as outlined via an IO-bus, a C-bus or a Basic interface, depending on the pushbutton.



Connection scheme pushbuttons



**Connection scheme C-bus pushbuttons**

## 2.7.1 Product overview

Features	RTB-IO	RTB-B	RT-C	SRT-IO	ART-IO	ART-B	AT-IO	AT-B	AT-C	AWT-IO	AWT-C	RAT-P-IO	RATB-IO	RATB-B	RAT-C	ARAT-P-IO	ARAT-C	ZTB-IO	ZRTB-B	ZRAT-IO	ZRAT-B	ZRAT-C	PT-IO	PT-B	PT-C	
Green cancel or presence button							•	•	•	•	•	•	•	•	•						•	•	•			
Blue presence button																•	•									
Yellow presence button										•	•															
Call button	•	•	•	•								•	•	•	•											
Service call button				•																						
Doctor call button					•	•										•	•									
Call forwarding												•				•	•									
Pull cord (function call button)																			•	•	•	•	•			
Pneumatic bellows (call button function)																								•	•	•
Use in wet rooms	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Connection to SWI9 via IO-bus	•			•	•		•			•		•	•			•		•		•			•			
Connection to basic interface		•				•		•						•						•		•			•	
Connection to C-bus interface			•							•	•				•		•						•			•

**No.: 21-1022001-01**

## RTB-IO call pushbutton

Pushbutton for releasing calls, equipped with a moisture-proof circuit board with locating and reassurance light. A green presence or cancel button is required for cancelling calls.

Suitable for mounting in the bed head unit or for wall mounting. For surface mounting, the corresponding APA-1 surface-mounted case is required; for flush mounting, a switch box installed in the wall must be required. Generally installed in patient rooms, common rooms and rooms with sanitary facilities.

- Intended for use in wet rooms
- Germ inhibiting membrane keypad with the following buttons:
  - Call button (red) with locating and reassurance light

System compatibility	Visocall IP
Operating voltage range	15 to 30 V DC
Current consumption	2.7 mA with 51.3 mW typ.
Interfaces/system connection	2 × RJ-45 sockets for connection to the IO-bus of a SWI9 (RS-485 interface with power supply)
Mounting	surface-mounted, flush-mounted or bed head unit
Degree of protection	IP44, VDE 0834 Environmental class II
Ambient temperature	0 °C to +40 °C
Relative air humidity	up to 95 % without condensation
Case material	plastic/ASA
Case colour	white, RAL 9016
Dimensions	80 × 83 × 32 mm (H×W×D)
Weight	58 g

## RTB-B call pushbutton



**No.: 21-1032000-01**

Pushbutton for releasing calls, equipped with a moisture-proof circuit board with locating and reassurance light.

Suitable for mounting in the bed head unit or for wall mounting. For surface mounting, the corresponding APA-1 surface-mounted case is required; for flush mounting, a switch box installed in the wall must be required. Generally installed in patient rooms, common rooms and rooms with sanitary facilities.

- Intended for use in wet rooms
- Germ inhibiting membrane keypad with the following buttons:
  - Call button (red) with locating and reassurance light

System compatibility	Visocall IP
Operating voltage range	15 to 30 V DC
Current consumption	2.9 mA typ.
Interfaces/system connection	1 × RJ-12 socket for connection to the Basic interface of a ZTD-B, ZTD-B-L, ZT-B, ZE-B or SM-B (Basic interface with power supply)
Mounting	surface-mounted, flush-mounted or bed head unit
Degree of protection	IP44, VDE 0834 Environmental class II
Ambient temperature	0 °C to +40 °C
Relative air humidity	5 to 100%
Case material	plastic/ASA
Case colour	white, RAL 9016
Dimensions	80 × 83 × 28 mm (H×W×D)
Weight	51 g

## RT-C call pushbutton



**No.: 21-1042000-01**

Pushbutton for releasing calls, equipped with locating and reassurance light.

The component is a C-bus room component. It can be used in the course of upgrading a Visocall Plus system to Visocall IP with the existing wiring and is connected to the C-Bus/R.

- Connection to C-Bus/R
- Intended for use in wet rooms
- Germ inhibiting membrane keypad with the following buttons:
  - Call button (red) with locating and reassurance light

System compatibility	Visocall IP, Visocall Plus
Operating voltage range	15 to 27.5 V DC
Current consumption	max. 2.75 mA with 66 mW typ. 1.88 mA with 45 mW
Interfaces/system connection	4 × four-wire plug-in terminals (with power supply) for connection to the C-bus/R interface of a ZTD-C, ZT-C or ZE-C or for connecting further room C-bus components.
Mounting	surface-mounted, flush-mounted or bed head unit
Degree of protection	IP32, VDE 0834 Environmental class II
Ambient temperature	+5 °C to +40 °C
Relative air humidity	5 to 95% without condensation
Case material	plastic/ASA
Case colour	white, RAL 9016
Dimensions	80 × 83 × 29 mm (H×W×D)
Weight	51 g

## SRT-IO call and service call pushbutton



**No.: 21-1022018-01**

Pushbutton for releasing calls and service calls, equipped with two locating and reassurance lights. A green presence or cancel button is required for cancelling calls. For cancelling service calls, a yellow presence button or - where configured - a green presence or cancel button is provided.

Suitable for mounting in the bed head unit or for wall mounting. For surface mounting, the corresponding APA-1 surface-mounted case is required; for flush mounting, a switch box installed in the wall must be required. Generally installed in patient rooms and common rooms.

- Germ inhibiting membrane keypad with the following buttons:
  - Call button (red) with locating and reassurance light
  - Service call button (grey) with locating and reassurance light

System compatibility	Visocall IP
Operating voltage range	15 to 30 V DC
Current consumption	2.7 mA with 51.3 mW typ.
Interfaces/system connection	2 × RJ-45 sockets for connection to the IO-bus of a SWI9 (RS-485 interface with power supply)
Mounting	surface-mounted, flush-mounted or bed head unit
Degree of protection	IP44, VDE 0834 Environmental class II
Ambient temperature	0 °C to +40 °C
Relative air humidity	up to 95 % without condensation
Case material	plastic/ASA
Case colour	white, RAL 9016
Dimensions	80 × 83 × 32 mm (H×W×D)
Weight	58 g

## ART-IO doctor call pushbutton



**No.: 21-1022016-01**

Pushbutton for releasing doctor calls, equipped with locating and reassurance light. A green presence or cancel button is required for cancelling doctor calls. Generally installed in rooms for patients requiring intensive care (intensive care unit).

Suitable for mounting in the bed head unit or for wall mounting. For surface mounting, the corresponding APA-1 surface-mounted case is required; for flush mounting, a switch box installed in the wall must be required. Generally installed in rooms for patients requiring intensive care (intensive care unit).

- Germ inhibiting membrane keypad with the following buttons:
  - Doctor call button optionally configurable as Code Blue (blue) with locating and reassurance light

System compatibility	Visocall IP
Operating voltage range	15 to 30 V DC
Current consumption	2.1 mA with 39.9 mW typ.
Interfaces/system connection	2 × RJ-45 sockets for connection to the IO-bus of a SWI9 (RS-485 interface with power supply)
Mounting	surface-mounted, flush-mounted or bed head unit
Degree of protection	IP44, VDE 0834 Environmental class II
Ambient temperature	0 °C to +40 °C
Relative air humidity	up to 95 % without condensation
Case material	plastic/ASA
Case colour	white, RAL 9016
Dimensions	80 × 83 × 32 mm (H×W×D)
Weight	58 g

## ART-B doctor call pushbutton



**No.: 21-1032016-01**

Pushbutton for releasing doctor calls, equipped with integrated locating and reassurance light. A green presence or cancel button is required for canceling doctor calls. Generally installed in rooms for patients requiring intensive care (intensive care unit).

Suitable for mounting in the bed head unit or for wall mounting. For surface mounting, the corresponding APA-1 surface-mounted case is required; for flush mounting, a switch box installed in the wall must be required. Generally installed in rooms for patients requiring intensive care (intensive care unit).

- Germ inhibiting membrane keypad with the following buttons:
  - Doctor call button optionally configurable as Code Blue (blue) with locating and reassurance light

System compatibility	Visocall IP
Operating voltage range	15 to 30 V DC
Current consumption	2.9 mA typ.
Interfaces/system connection	1 × RJ-12 socket for connection to the Basic interface of a ZTD-B, ZTD-B-L, ZT-B, ZE-B or SM-B (Basic interface with power supply)
Mounting	surface-mounted, flush-mounted or bed head unit
Degree of protection	IP44, VDE 0834 Environmental class II
Ambient temperature	0 °C to +40 °C
Relative air humidity	up to 95 % without condensation
Case material	plastic/ASA
Case colour	white, RAL 9016
Dimensions	80 × 83 × 28 mm (H×W×D)
Weight	51 g

## AT-IO cancel pushbutton



**No.: 21-1022008-01**

Pushbutton for cancelling calls, equipped with a status LED. The cancel button can be optionally configured as a green presence button. Generally mounted in sanitary facilities (toilets or wet groups).

Suitable for mounting in the bed head unit or for wall mounting. For surface mounting, the corresponding APA-1 surface-mounted case is required; for flush mounting, a switch box installed in the wall must be required. Generally installed in wet rooms (toilets or wet rooms).

- Germ inhibiting membrane keypad with the following buttons:
  - Cancel button (green) with status LED

System compatibility	Visocall IP
Operating voltage range	15 to 30 V DC
Current consumption	2.7 mA with 51.3 mW typ.
Interfaces/system connection	2 × RJ-45 sockets for connection to the IO-bus of a SWI9 (RS-485 interface with power supply)
Mounting	surface-mounted, flush-mounted or bed head unit
Degree of protection	IP44, VDE 0834 Environmental class II
Ambient temperature	0 °C to +40 °C
Relative air humidity	up to 95 % without condensation
Case material	plastic/ASA
Case colour	white, RAL 9016
Dimensions	80 × 83 × 32 mm (H×W×D)
Weight	58 g

## AT-B cancel pushbutton



**No.: 21-1032008-01**

Pushbutton for cancelling calls, equipped with a status LED. The cancel button can be optionally configured as a green presence button.

Suitable for mounting in the bed head unit or for wall mounting. For surface mounting, the corresponding APA-1 surface-mounted case is required; for flush mounting, a switch box installed in the wall must be required. Generally installed in wet rooms (toilets or wet rooms).

- Germ inhibiting membrane keypad with the following buttons:
  - Cancel button (green) with status LED

System compatibility	Visocall IP
Operating voltage range	15 to 30 V DC
Current consumption	0 mA typ.
Interfaces/system connection	1 × RJ-12 socket for connection to the Basic interface of a ZTD-B, ZTD-B-L, ZT-B, ZE-B or SM-B (Basic interface with power supply)
Mounting	surface-mounted, flush-mounted or bed head unit
Degree of protection	IP44, VDE 0834 Environmental class II
Ambient temperature	0 °C to +40 °C
Relative air humidity	up to 95 % without condensation
Case material	plastic/ASA
Case colour	white, RAL 9016
Dimensions	80 × 83 × 28 mm (H×W×D)
Weight	51 g

## AT-C cancel pushbutton



**No.: 21-1042008-01**

Pushbutton for cancelling calls, equipped with a status LED. The cancel button can be optionally configured as a green presence button. Generally installed in wet rooms (toilets or wet rooms).

The component is a C-bus room component. It can be used in the course of upgrading a Visocall Plus system to Visocall IP with the existing wiring and is connected to the C-Bus/R.

- Germ inhibiting membrane keypad with the following buttons:
  - Cancel button (green) with status LED

System compatibility	Visocall IP, Visocall Plus
Operating voltage range	15 to 27.5 V DC
Current consumption	max. 2.75 mA with 66 mW typ. 1.88 mA with 45 mW
Interfaces/system connection	4 x four-wire plug-in terminals (with power supply) for connection to the C-bus/R interface of a ZTD-C, ZT-C or ZE-C or for connecting further room C-bus components.
Mounting	surface-mounted, flush-mounted or bed head unit
Degree of protection	IP32, VDE 0834 Environmental class II
Ambient temperature	+5 °C to +40 °C
Relative air humidity	5 to 95%
Case material	plastic/ASA
Case colour	white, RAL 9016
Dimensions	80 x 83 x 28 mm (HxWxD)
Weight	56 g

## AWT-IO presence pushbutton



**No.: 21-1022014-01**

Pushbutton for setting and deactivating green and yellow presences equipped with two status LED.

Suitable for mounting in the bed head unit or for wall mounting. For surface mounting, the corresponding APA-1 surface-mounted case is required; for flush mounting, a switch box installed in the wall must be required. Generally installed in rooms with two entrances, where a terminal is equipped.

- Germ inhibiting membrane keypad with the following buttons:
  - Presence button (green) with status LED
  - Presence button (yellow) with status LED

System compatibility	Visocall IP
Operating voltage range	15 to 30 V DC
Current consumption	2.7 mA with 51.3 mW typ.
Interfaces/system connection	2 × RJ-45 sockets for connection to the IO-bus of a SWI9 (RS-485 interface with power supply)
Mounting	surface-mounted, flush-mounted or bed head unit
Degree of protection	IP44, VDE 0834 Environmental class II
Ambient temperature	0 °C to +40 °C
Relative air humidity	up to 95 % without condensation
Case material	plastic/ASA
Case colour	white, RAL 9016
Dimensions	80 × 83 × 32 mm (H×W×D)
Weight	58 g

## AWT-C presence pushbutton



**No.: 21-1042014-01**

Pushbutton for setting and deactivating green and yellow presences, equipped with two status LED. Generally installed in rooms with two entrances, where a terminal is equipped.

The component is a C-bus room component. It can be used in the course of upgrading a Visocall Plus system to Visocall IP with the existing wiring and is connected to the C-Bus/R.

- Connection to C-Bus/R
- Germ inhibiting membrane keypad with the following buttons:
  - Presence button (green) with status LED
  - Presence button (yellow) with status LED

System compatibility	Visocall IP, Visocall Plus
Operating voltage range	15 to 27.5 V DC
Current consumption	max. 2.75 mA with 66 mW typ. 1.88 mA with 45 mW
Interfaces/system connection	4 × four-wire plug-in terminals (with power supply) for connection to the C-bus/R interface of a ZTD-C, ZT-C or ZE-C or for connecting further room C-bus components.
Mounting	surface-mounted, flush-mounted or bed head unit
Degree of protection	IP32, VDE 0834 Environmental class II
Ambient temperature	+5 °C to +40 °C
Relative air humidity	5 to 95%
Case material	plastic/ASA
Case colour	white, RAL 9016
Dimensions	80 × 83 × 28 mm (H×W×D)
Weight	56 g

## RAT-P-IO call/cancel pushbutton



**No.: 21-1022012-01**

Pushbutton with acoustic call forwarding for releasing calls and setting and deactivating green presences. Equipped with locating and reassurance light and status LED.

Suitable for mounting in the bed head unit or for wall mounting. For surface mounting, the corresponding APA-1 surface-mounted case is required; for flush mounting, a switch box installed in the wall must be required. Generally installed in patient rooms.

- Call forwarding with set presences
- Integrated sound generator for signalling in case of call forwarding
- Germ inhibiting membrane keypad with the following buttons:
  - Presence button (green) with status LED
  - Call button (red) with locating and reassurance light

System compatibility	Visocall IP
Operating voltage range	15 to 30 V DC
Current consumption	2.7 mA with 51.3 mW typ.
Interfaces/system connection	2 × RJ-45 sockets for connection to the IO-bus of a SWI9 (RS-485 interface with power supply)
Mounting	surface-mounted, flush-mounted or bed head unit
Degree of protection	IP44, VDE 0834 Environmental class II
Ambient temperature	0 °C to +40 °C
Relative air humidity	up to 95 % without condensation
Case material	plastic/ASA
Case colour	white, RAL 9016
Dimensions	80 × 83 × 32 mm (H×W×D)
Weight	58 g

**No.: 21-1022011-01**

## RATB-IO call/cancel pushbutton

Pushbutton for releasing and cancelling calls, equipped with locating and reassurance light and status LED. The cancel button can be optionally configured as a green presence button.

Suitable for mounting in the bed head unit or for wall mounting. For surface mounting, the corresponding APA-1 surface-mounted case is required; for flush mounting, a switch box installed in the wall must be required. Generally installed in patient rooms, common rooms and wet rooms (toilets and wet rooms)

- Intended for use in wet rooms
- Germ inhibiting membrane keypad with the following buttons:
- Presence button (green) with status LED
  - Call button (red) with locating and reassurance light

System compatibility	Visocall IP
Operating voltage range	15 to 30 V DC
Current consumption	2.7 mA with 51.3 mW typ.
Interfaces/system connection	2 × RJ-45 sockets for connection to the IO-bus of a SWI9 (RS-485 interface with power supply)
Mounting	surface-mounted, flush-mounted or bed head unit
Degree of protection	IP44, VDE 0834 Environmental class II
Ambient temperature	0 °C to +40 °C
Relative air humidity	5 to 100%
Case material	plastic/ASA
Case colour	white, RAL 9016
Dimensions	80 × 83 × 32 mm (H×W×D)
Weight	58 g

## RATB-B call/cancel pushbutton



**No.: 21-1032011-01**

Pushbutton for releasing and cancelling calls, equipped with locating and reassurance light and status LED. The cancel button can be optionally configured as a green presence button.

Suitable for mounting in the bed head unit or for wall mounting. For surface mounting, the corresponding APA-1 surface-mounted case is required; for flush mounting, a switch box installed in the wall must be required. Generally installed in patient rooms, common rooms and wet rooms (toilets and wet rooms)

- Intended for use in wet rooms
- Germ inhibiting membrane keypad with the following buttons:
  - Presence button (green) with status LED
  - Call button (red) with locating and reassurance light

System compatibility	Visocall IP
Operating voltage range	15 to 30 V DC
Current consumption	2.9 mA typ.
Interfaces/system connection	1 × RJ-12 socket for connection to the Basic interface of a ZTD-B, ZTD-B-L, ZT-B, ZE-B or SM-B (Basic interface with power supply)
Mounting	surface-mounted, flush-mounted or bed head unit
Degree of protection	IP44, VDE 0834 Environmental class II
Ambient temperature	0 °C to +40 °C
Relative air humidity	5 to 100%
Case material	plastic/ASA
Case colour	white, RAL 9016
Dimensions	80 × 83 × 28 mm (H×W×D)
Weight	51 g

**No.: 21-1042010-01**

## RAT-C call/cancel pushbutton

Pushbutton for releasing and cancelling calls, equipped with locating and reassurance light and status LED. The cancel button can be optionally configured as a green presence button.

The component is a C-bus room component. It can be used in the course of upgrading a Visocall Plus system to Visocall IP with the existing wiring and is connected to the C-Bus/R.

- Intended for use in wet rooms
- Germ inhibiting membrane keypad with the following buttons:
  - Presence button (green) with status LED
  - Call button (red) with locating and reassurance light
- Connection to C-Bus/R
- Moisture protected
- Call button
- Cancel button
- Germ-inhibiting membrane keyboard

System compatibility	Visocall IP, Visocall Plus
Operating voltage range	15 to 27.5 V DC
Current consumption	max. 2.75 mA with 66 mW typ. 1.88 mA with 45 mW
Interfaces/system connection	4 × four-wire plug-in terminals (with power supply) for connection to the C-bus/R interface of a ZTD-C, ZT-C or ZE-C or for connecting further room C-bus components.
Mounting	surface-mounted, flush-mounted or bed head unit
Degree of protection	IP32, VDE 0834 Environmental class II
Ambient temperature	+5 °C to +40 °C
Relative air humidity	5 to 95%
Case material	plastic/ASA
Case colour	white, RAL 9016
Dimensions	80 × 83 × 28 mm (H×W×D)
Weight	56 g

## ARAT-P-IO doctor call/cancel pushbutton



**No.: 21-1022020-01**

Pushbutton with acoustic call forwarding for releasing doctor calls and setting and deactivating blue presences. Equipped with locating and reassurance light and status LED. Generally installed in patient rooms as addition for a terminal without doctor call button and in rooms for medical staff (doctor's rooms).

Suitable for mounting in the bed head unit or for wall mounting. For surface mounting, the corresponding APA-1 surface-mounted case is required; for flush mounting, a switch box installed in the wall must be required. Generally installed in patient rooms as addition for a terminal without doctor call button and in rooms for medical staff (doctor's rooms).

- Call forwarding with set presences
- Integrated sound generator for signalling in case of call forwarding
- Germ inhibiting membrane keypad with the following buttons:
  - Presence button (blue) with status LED
  - Doctor call button optionally configurable as Code Blue (blue) with locating and reassurance light

System compatibility	Visocall IP
Operating voltage range	15 to 30 V DC
Current consumption	2.5 mA typ.
Interfaces/system connection	2 × RJ-45 sockets for connection to the IO-bus of a SWI9 (RS-485 interface with power supply)
Mounting	surface-mounted, flush-mounted or bed head unit
Degree of protection	IP44, VDE 0834 Environmental class II
Ambient temperature	0 °C to +40 °C
Relative air humidity	5 to 100%
Case material	plastic/ASA
Case colour	white, RAL 9016
Dimensions	80 × 83 × 32 mm (H×W×D)
Weight	58 g

**No.: 21-1042020-01**

## ARAT-C doctor call/cancel pushbutton

Pushbutton with acoustic call forwarding for releasing doctor calls optionally configurable as Code Blue and setting and deactivating blue presences. Equipped with locating and reassurance light and status LED. Generally installed in patient rooms as addition for a terminal without doctor call button and in rooms for medical staff (doctor's rooms).

The component is a C-bus room component. It can be used in the course of upgrading a Visocall Plus system to Visocall IP with the existing wiring and is connected to the C-Bus/R.

- Call forwarding with set presences
- Integrated sound generator for signalling in case of call forwarding
- Germ inhibiting membrane keypad with the following buttons:
  - Presence button (blue) with status LED
  - Doctor call button optionally configurable as Code Blue (blue) with locating and reassurance light
- Connection to C-Bus/R
- Doctor call button optionally configurable as Code Blue
- Cancel button
- Mounting frame
- Mounting rail with board
- Membrane keypad

System compatibility	Visocall IP, Visocall Plus
Operating voltage range	15 to 27.5 V DC
Current consumption	
LEDs active	max. 2.75 mA with 24 V DC
Idle	typ. 1.88 mA with 24 V DC
Interfaces/system connection	4 x four-wire plug-in terminals (with power supply) for connection to the C-bus/R interface of a ZTD-C, ZT-C or ZE-C or for connecting further room C-bus components.
Mounting	surface-mounted, flush-mounted or bed head unit
Degree of protection	IP32, VDE 0834 Environmental class II
Ambient temperature	+5 °C to +40 °C
Relative air humidity	5 to 95%
Case material	plastic/ASA
Case colour	white, RAL 9016
Dimensions	80 x 83 x 28 mm (HxWxD)
Weight	56 g

## ZTB-IO pull cord call switch



No.: 21-1022003-01

Pushbutton for releasing calls with a pull cord, for individuals requiring assistance in situations with restricted mobility. Equipped with moisture-proof circuit board and a locating and reassurance light. A green presence or cancel button is required for cancelling calls.

Suitable for mounting in the bed head unit or for wall mounting. For surface mounting, the corresponding APA-1 surface-mounted case is required; for flush mounting, a switch box installed in the wall must be required. Generally installed in wet rooms (toilets or wet rooms).

In accordance with VDE 0834, pull cord call switches must be installed in shower cabins at least 20 centimetre above the highest possible position of the shower head. The pull cord must end 10 – 20 centimetre above the floor.

- Intended for use in wet rooms
- Integrated locating and reassurance light
- Pulling the pull cord has the same effect as pressing a call button (red)
- Fast-exchange pull cord (approx. two meter) with snap hook
- Red grip with nurse symbol

System compatibility	Visocall IP
Operating voltage range	15 to 30 V DC
Current consumption	2.7 mA with 51.3 mW typ.
Interfaces/system connection	2 × RJ-45 sockets for connection to the IO-bus of a SWI9 (RS-485 interface with power supply)
Mounting	surface-mounted, flush-mounted or bed head unit
Degree of protection	IP44, VDE 0834 Environmental class II
Ambient temperature	–25 °C to +55 °C
Relative air humidity	up to 95 %
Case material	plastic/ASA
Case colour	white, RAL 9016
Pull cord	approx. 2 m, max. tensile force 120 N
Grip	30 × 35 × 13 mm (H×W×D)
Weight	59 g
with pull cord and handle	74 g

## ZRTB-B pull cord call switch



**No.: 21-1032003-01**

Pull cord call switch for releasing calls using a 2 metre pull cord, for individuals requiring assistance in situations with restricted mobility. Equipped with a locating and reassurance light. A green presence or cancel button is required for cancelling calls. Generally installed in wet rooms (toilets or wet rooms).

Suitable for mounting in the bed head unit or for wall mounting. For surface mounting, the corresponding APA-1 surface-mounted case is required; for flush mounting, a switch box installed in the wall must be installed in wet rooms (toilets or wet rooms).

In accordance with VDE 0834, pull cord call switches must be installed in shower cabins at least 20 centimetre above the highest possible position of the shower head. The pull cord must end 10 – 20 centimetre above the floor.

- Intended for use in wet rooms
- Integrated locating and reassurance light
- Pulling the pull cord has the same effect as pressing a call button (red)
- Fast-exchange pull cord (approx. two meter) with snap hook
- Red grip with nurse symbol

System compatibility	Visocall IP
Operating voltage range	15 to 30 V DC
Current consumption	0.2 mA typ.
Interfaces/system connection	1 × RJ-12 socket for connection to the Basic interface of a ZTD-B, ZTD-B-L, ZT-B, ZE-B or SM-B (Basic interface with power supply)
Mounting	surface-mounted, flush-mounted or bed head unit
Degree of protection	IP44, VDE 0834 Environmental class II
Ambient temperature	–25 °C to +55 °C
Relative air humidity	up to 95 %
Case material	plastic/ASA
Case colour	white, RAL 9016
Grip	30 × 35 × 13 mm (H×W×D)
Dimensions	80 × 83 × 47 mm (H×W×D)
Weight	73 g

## ZRAT-IO pull cord call/cancel pushbutton



**No.: 21-1022004-01**

Pull cord call/cancel pushbutton for releasing calls using a 2 metre pull cord, for individuals requiring assistance in situations with restricted mobility. Equipped with cancel button, locating and reassurance light and status LED. The cancel button can be optionally configured as a green presence button. They are usually mounted in toilets or wet rooms.

Suitable for mounting in the bed head unit or for wall mounting. For surface mounting, the corresponding APA-1 surface-mounted case is required; for flush mounting, a switch box installed in the wall must be required. Generally installed in wet rooms (toilets or wet rooms).

In accordance with VDE 0834, pull cord call switches must be installed in shower cabins at least 20 centimetre above the highest possible position of the shower head. The pull cord must end 10 – 20 centimetre above the floor.

- Intended for use in wet rooms
- Integrated locating and reassurance light
- Pulling the pull cord has the same effect as pressing a call button (red)
- Fast-exchange pull cord (approx. two meter) with snap hook
- Red grip with nurse symbol
- Germ inhibiting membrane keypad with the following buttons:
  - Presence button (green) with status LED

System compatibility	Visocall IP
Operating voltage range	15 to 30 V DC
Current consumption	2.5 mA typ.
Interfaces/system connection	2 x RJ-45 sockets for connection to the IO-bus of a SWI9 (RS-485 interface with power supply)
Mounting	surface-mounted, flush-mounted or bed head unit
Degree of protection	IP44, VDE 0834 Environmental class II
Ambient temperature	0 °C to +40 °C
Relative air humidity	up to 95 %
Case material	plastic/ASA
Case colour	white, RAL 9016
Dimensions	80 x 83 x 53 mm (HxWxD)
Grip	30 x 35 x 13 mm (HxWxD)
Weight	74 g

## ZRAT-B pull cord call/cancel pushbutton



**No.: 21-1032004-01**

Pull cord call/cancel pushbutton for releasing calls using a 2 metre pull cord, for individuals requiring assistance in situations with restricted mobility. Equipped with cancel button, locating and reassurance light and status LED. The cancel button can be optionally configured as a green presence button. Generally mounted in toilets or wet rooms.

Suitable for mounting in the bed head unit or for wall mounting. For surface mounting, the corresponding APA-1 surface-mounted case is required; for flush mounting, a switch box installed in the wall must be required. Generally installed in wet rooms (toilets or wet rooms).

In accordance with VDE 0834, pull cord call switches must be installed in shower cabins at least 20 centimetre above the highest possible position of the shower head. The pull cord must end 10 – 20 centimetre above the floor.

- Intended for use in wet rooms
- Integrated locating and reassurance light
- Pulling the pull cord has the same effect as pressing a call button (red)
- Fast-exchange pull cord (approx. two meter) with snap hook
- Red grip with nurse symbol
- Germ inhibiting membrane keypad with the following buttons:
  - Presence button (green) with status LED

System compatibility	Visocall IP
Operating voltage range	15 to 30 V DC
Current consumption	0.2 mA typ.
Interfaces/system connection	1 × RJ-12 socket for connection to the Basic interface of a ZTD-B, ZTD-B-L, ZT-B, ZE-B or SM-B (Basic interface with power supply)
Mounting	surface-mounted, flush-mounted or bed head unit
Degree of protection	IP44, VDE 0834 Environmental class II
Ambient temperature	–25 °C to +55 °C
Relative air humidity	up to 95 %
Case material	plastic/ASA
Case colour	white, RAL 9016
Dimensions	80 × 83 × 45 mm (H×W×D)
Grip	30 × 35 × 13 mm (H×W×D)
Weight	70 g

## ZRAT-C pull cord call/cancel pushbutton



**No.: 21-1042004-01**

Pull cord call/cancel pushbutton for releasing calls with a pull cord, for individuals requiring assistance in situations with restricted mobility. Equipped with cancel button as well as locating and reassurance light and status LED. The cancel button can be optionally configured as a green presence button. Generally installed in wet rooms (toilets or wet rooms).

The component is a C-bus room component. It can be used in the course of upgrading a Visocall Plus system to Visocall IP with the existing wiring and is connected to the C-Bus/R.

Suitable for mounting in the bed head unit or for wall mounting. For surface mounting, the corresponding APA-1 surface-mounted case is required; for flush mounting, a switch box installed in the wall must be required. Generally installed in wet rooms (toilets or wet rooms).

In accordance with VDE 0834, pull cord call switches must be installed in shower cabins at least 20 centimetre above the highest possible position of the shower head. The pull cord must end 10 – 20 centimetre above the floor.

- Pulling the pull cord has the same effect as pressing a call button (red)
- Fast-exchange pull cord (approx. two meter) with snap hook
- Red grip with nurse symbol
- Germ inhibiting membrane keypad with the following buttons:
  - Presence button (green) with status LED
- Up to four devices of the same type per room possible
- Connection to C-Bus/R
- Moisture protected
- Pull cord
- Cancel button
- Germ-inhibiting membrane keyboard

System compatibility	Visocall IP, Visocall Plus
Operating voltage range	15 to 27.5 V DC
Current consumption	
Buttons and LEDs active	max. 3.2 mA with 24 V DC
Idle	typ. 1.7 mA with 24 V DC
Interfaces/system connection	4 × four-wire plug-in terminals (with power supply) for connection to the C-bus/R interface of a ZTD-C, ZT-C or ZE-C or for connecting further room C-bus components.
Mounting	surface-mounted, flush-mounted or bed head unit
Degree of protection	IP32, VDE 0834 Environmental class II
Ambient temperature	+5 °C to +40 °C
Relative air humidity	5 to 95% without condensation
Case material	plastic/ASA
Case colour	white, RAL 9016
Dimensions	80 × 83 × 45 mm (H×W×D)
Grip	30 × 35 × 13 mm (H×W×D)
Weight	62 g

**No.: 21-1022006-01**

## PT-IO pneumatic call switch

Pneumatic call switch for releasing calls with bellow, for individuals requiring assistance in situations with restricted mobility. Equipped with two metre long pneumatic hose, and a locating and reassurance light. A green presence or cancel button is required for cancelling calls. Generally mounted in patient rooms, ordinary bathrooms, and facilities for mud and peat baths.

Suitable for mounting in the bed head unit or for wall mounting. For surface mounting, the corresponding APA-1 surface-mounted case is required; for flush mounting, a switch box installed in the wall must be required. Generally installed in patient rooms near the bed in the vicinity of the headboard and in facilities for peat pulp and mud baths.

- Integrated locating and reassurance light
- Actuating the bellows has the same effect as pressing a call button (red)
- Quick-change plastic hose

System compatibility	Visocall IP
Operating voltage range	15 to 27 V DC
Current consumption	2.7 mA with 51.3 mW typ.
Interfaces/system connection	2 × RJ-45 sockets for connection to the IO-bus of a SWI9 (RS-485 interface with power supply)
Mounting	surface-mounted, flush-mounted or bed head unit
Degree of protection	IP44, VDE 0834 Environmental class II
Ambient temperature	0 °C to +40 °C
Relative air humidity	up to 95 % without condensation
Case material	plastic/ASA
Case colour	white, RAL 9016
Bellow	61 × 79 mm (Ø×H)
Grip	30 × 35 × 13 mm (H×W×D)
Dimensions	80 × 83 × 52 mm (H×W×D)
Weight	164 g

**No.: 21-1032006-01**

## PT-B pneumatic call switch

Pneumatic call switch for releasing calls with bellow, for individuals requiring assistance in situations with restricted mobility. Equipped with two metre long pneumatic hose, and a locating and reassurance light. A green presence or cancel button is required for cancelling calls. Generally installed in patient rooms near the bed in the vicinity of the headboard and in facilities for peat pulp and mud baths.

Suitable for mounting in the bed head unit or for wall mounting. For surface mounting, the corresponding APA-1 surface-mounted case is required; for flush mounting, a switch box installed in the wall must be required. Generally installed in patient rooms near the bed in the vicinity of the headboard and in facilities for peat pulp and mud baths.

- Integrated locating and reassurance light
- Actuating the bellows has the same effect as pressing a call button (red)
- Quick-change plastic hose

System compatibility	Visocall IP
Operating voltage range	15 to 30 V DC
Current consumption	2.9 mA with 55.1 mW typ.
Interfaces/system connection	1 × RJ-12 socket for connection to the Basic interface of a ZTD-B, ZTD-B-L, ZT-B, ZE-B or SM-B (Basic interface with power supply)
Mounting	surface-mounted, flush-mounted or bed head unit
Degree of protection	IP44, VDE 0834 Environmental class II
Ambient temperature	0 °C to +40 °C
Relative air humidity	up to 95 % without condensation
Case material	plastic/ASA
Case colour	white, RAL 9016
Bellow	61 × 79 mm (Ø×H)
Grip	30 × 35 × 13 mm (H×W×D)
Dimensions	80 × 83 × 44 mm (H×W×D)
Weight	155 g

**No.: 21-1042006-01**

## PT-C pneumatic call switch

Pneumatic call switch for releasing calls with bellow, for individuals requiring assistance in situations with restricted mobility. Equipped with a locating and reassurance light. A green presence or cancel button is required for cancelling calls. Generally installed in patient rooms near the bed in the vicinity of the headboard and in facilities for peat pulp and mud baths.

The component is a C-bus room component. It can be used in the course of upgrading a Visocall Plus system to Visocall IP with the existing wiring and is connected to the C-Bus/R.

Suitable for mounting in the bed head unit or for wall mounting. For surface mounting, the corresponding APA-1 surface-mounted case is required; for flush mounting, a switch box installed in the wall must be required. Generally installed in patient rooms near the bed in the vicinity of the headboard and in facilities for peat pulp and mud baths.

- Integrated locating and reassurance light
- Actuating the bellows has the same effect as pressing a call button (red)
- Quick-change plastic hose
- Up to four devices of the same type per room possible
- Connection to C-Bus/R
- 2-metre pneumatic hose and pressure ball
- Mounting frame
- Mounting rail with board
- Function and monitoring electronics
- Moisture protected
- Germ-inhibiting membrane keyboard

System compatibility	Visocall IP, Visocall Plus
Operating voltage range	15 to 27.5 V DC
Current consumption	
Buttons and LEDs active	max. 3.2 mA with 24 V DC
Idle	typ. 1.7 mA with 24 V DC
Interfaces/system connection	4 × four-wire plug-in terminals (with power supply) for connection to the C-bus/R interface of a ZTD-C, ZT-C or ZE-C or for connecting further room C-bus components.
Mounting	surface-mounted, flush-mounted or bed head unit
Degree of protection	IP32, VDE 0834 Environmental class II
Ambient temperature	+5 °C to +40 °C
Relative air humidity	5 to 95% without condensation
Case material	plastic/ASA
Case colour	white, RAL 9016
Bellow	61 × 79 mm (Ø×H)
Grip	30 × 35 × 13 mm (H×W×D)
Dimensions	80 × 83 × 40 mm (H×W×D)
Weight	156 g

## Pushbuttons and accessories

	Designation	Type	Article no.
	<b>RTB-IO call pushbutton</b>	RTB-IO	21-1022001-01
	<b>RTB-B call pushbutton</b>	RTB-B	21-1032000-01
	<b>RT-C call pushbutton</b>	RT-C	21-1042000-01
	<b>SRT-IO call and service call pushbutton</b>	SRT-IO	21-1022018-01
	<b>ART-IO doctor call pushbutton</b>	ART-IO	21-1022016-01
	<b>ART-B doctor call pushbutton</b>	ART-B	21-1032016-01
	<b>AT-IO cancel pushbutton</b>	AT-IO	21-1022008-01
	<b>AT-B cancel pushbutton</b>	AT-B	21-1032008-01
	<b>AT-C cancel pushbutton</b>	AT-C	21-1042008-01
	<b>AWT-IO presence pushbutton</b>	AWT-IO	21-1022014-01
	<b>AWT-C presence pushbutton</b>	AWT-C	21-1042014-01
	<b>RAT-P-IO call/cancel pushbutton</b>	RAT-P-IO	21-1022012-01
	<b>RATB-IO call/cancel pushbutton</b>	RATB-IO	21-1022011-01
	<b>RATB-B call/cancel pushbutton</b>	RATB-B	21-1032011-01

	<b>Designation</b>	<b>Type</b>	<b>Article no.</b>
	<b>RAT-C call/cancel pushbutton</b>	RAT-C	21-1042010-01
	<b>ARAT-P-IO doctor call/cancel pushbutton</b>	ARAT-P-IO	21-1022020-01
	<b>ARAT-C doctor call/cancel pushbutton</b>	ARAT-C	21-1042020-01
	<b>ZTB-IO pull cord call switch</b>	ZTB-IO	21-1022003-01
	<b>ZRTB-B pull cord call switch</b>	ZRTB-B	21-1032003-01
	<b>ZRAT-IO pull cord call/cancel pushbutton</b>	ZRAT-IO	21-1022004-01
	<b>ZRAT-B pull cord call/cancel pushbutton</b>	ZRAT-B	21-1032004-01
	<b>ZRAT-C pull cord call/cancel pushbutton</b>	ZRAT-C	21-1042004-01
	<b>PT-IO pneumatic call switch</b>	PT-IO	21-1022006-01
	<b>PT-B pneumatic call switch</b>	PT-B	21-1032006-01
	<b>PT-C pneumatic call switch</b>	PT-C	21-1042006-01
	<b>Pull cord call switch cord red incl. snap hook and grip, 10 pcs. (replacement)</b> Pull cord length 2.3 m	ZT-S2-E	21-1002300-01
	<b>Pull cord call switch cord red incl. snap hook and grip, 10 pcs. (replacement)</b> Pull cord length 4 m	ZT-S4-E	21-1002300-02
	<b>Pull cord call switch cord red incl. snap hook, 10 pcs. (replacement)</b> Pull cord length 2.3 m	ZT-S2	21-1002301-01

	<b>Designation</b>	<b>Type</b>	<b>Article no.</b>
	<b>Pull cord call switch cord red 16 cm, 10 pcs. (replacement)</b> Connection part for pull cord call switch circuit board	ZT-S016-E	21-1002302-01
	<b>Pull cord call switch IP66</b> with locating and reassurance light (change-over contact)	ZT-IP66	FC007972
	<b>Pull cord call switch IP68</b> with locating light, without reassurance light (change-over contact)	ZT-IP68	FC007974
	<b>Call pushbutton IP66</b> with locating light, without reassurance light (change-over contact)	RT-IP66	FC007975
	<b>Cancel pushbutton IP66</b> with locating and reassurance light (change-over contact)	AT-IP66	FC007973
	<b>AP-1 surface-mounted case</b>	APA-1	21-1002021-01
	<b>Flush-mounted switch box</b>	U1	FC88010
	<b>Flush-mounted switch box</b> for brick walls, 60x66 mm (DxH)	U1 66	21-2400003-01
	<b>Cavity wall switch box, round</b>	H1	21-2400000-01
	<b>Cavity wall switch box</b> 68x62 mm (DxH)	H1 62	21-2400002-01

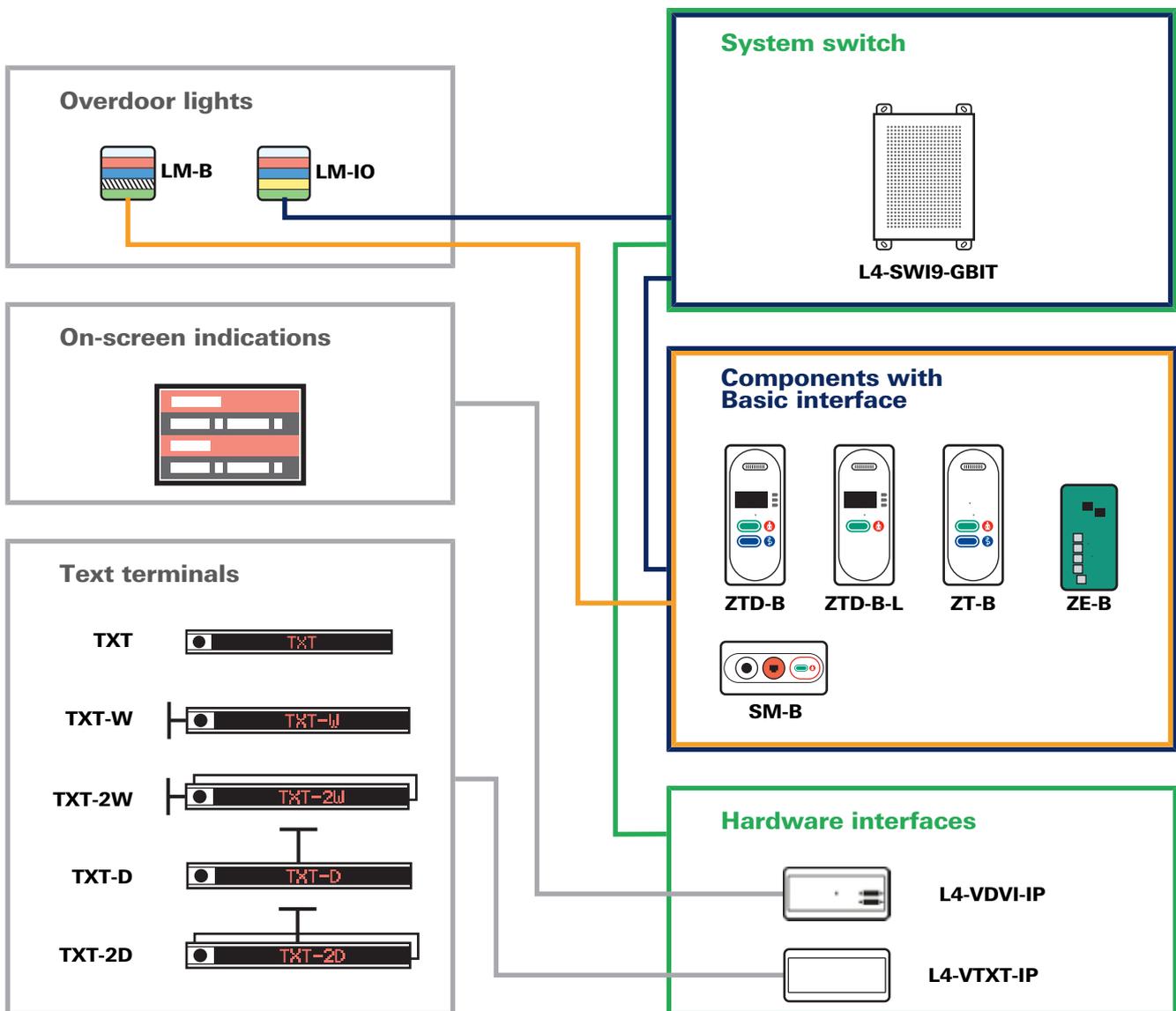
## 2.8 Call indications

Call indications are devices which are designed for the optical signalling of calls and reminder modes of all kinds. Indication in accordance with VDE 0834. Call systems conforming to VDE 0834 must additionally comply with requirements regarding the mounting position.

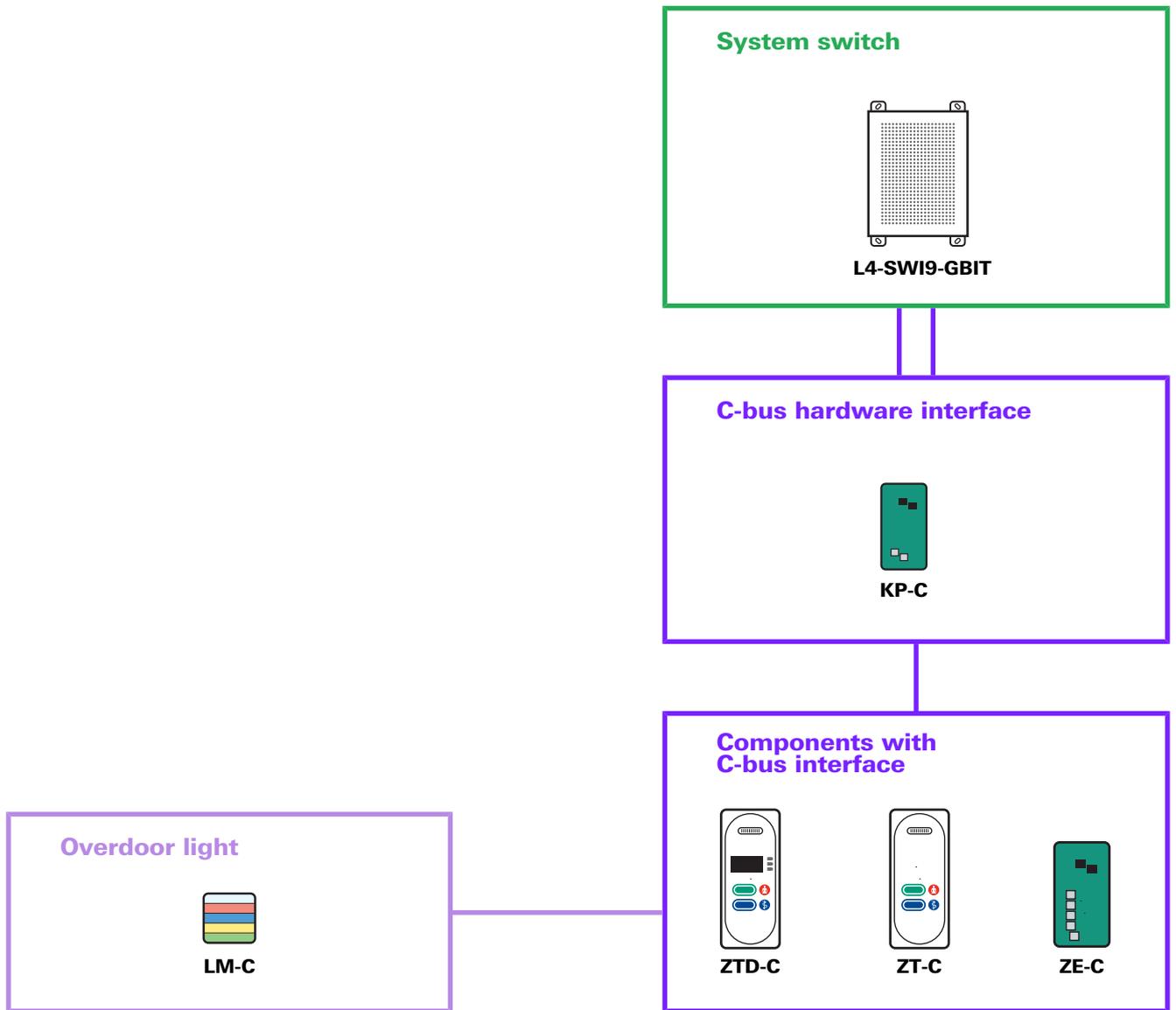
Call indications can be broken down into two groups:

- Overdoor lights are equipped with several indication fields in different colours for indicating calls, presences and reminder modes. The indication is colour-coded according to VDE 0834. Generally installed as a overdoor light in front of all rooms with a presence or call option.
- Large text indications show calls and reminder modes in an alphanumeric order to guide staff to the call location by the shortest route. Generally installed in corridors, where they are used for the grouped indication for several rooms (analogous to group lamps).

The system connection is implemented as outlined via an IO-bus, a hardware interface, a C-bus or a Basic interface, depending on the model.



Connection scheme call indications



Connection scheme C-bus call indication

## 2.8.1 Product overview

Features	LM-IO	LM-B	LM-C	On-screen indications	TXT	TXT-W	TXT-D	TXT-2W	TXT-2D
Use as an overdoor light	•	•	•	•					
Use as a direction lamp	•		•						
Use as a group lamp	•								
Colours for colour-coded indication	•	•	•	•					
Alphanumeric indication (ward and room abbreviated)					•	•	•	•	•
Alphanumeric indication (ward and room written out)				•					
Loudspeaker for announcements					•	•	•	•	•
Separate power supply		•		•					
Connection to SWI9 via IP port				L4-VDVI-IP	L4-TVI-IP	L4-TVI-IP	L4-TVI-IP	L4-TVI-IP	L4-TVI-IP
Connection to SWI9 via IO-bus	•								
Connection to basic interface		•							
Connection to C-bus interface			•						

## LM-IO light module



**No.: 21-1022500-01**

Call indication usable as overdoor light, for the optical signalling of calls, presences and reminder modes. Five indication fields for colour-coded indication in accordance with VDE 0834. The light module can be configured as a group or direction lamp.

Suitable for wall mounting. For surface mounting, the corresponding APA-1 surface-mounted case is required; for flush mounting, a switch box installed in the wall must be required. Generally installed as an overdoor light in front of all rooms with a presence or call option.

- Discreet white light in idle mode
- Bright, eye-catching colours when active
- Diffuse, light-diffusing cover for evenly illuminated signs
- Five LED indication fields in the colours white, red, blue, yellow, green with three colour LED each

System compatibility	Visocall IP
Operating voltage range	15 to 27 V DC
Interfaces/system connection	2 × RJ-45 sockets for connection to the IO-bus of a SWI9 (RS-485 interface with power supply)
Interfaces/system connection	2 × RJ-45 sockets for connection to the IO-bus of a SWI9 (RS-485 interface with power supply)
Mounting	Surface or flush-mounted
Degree of protection	IP32, VDE 0834 Environmental class II
Ambient temperature	+5 °C to +40 °C
Relative air humidity	up to 95 % without condensation
Light sources	
Lighting intensity	max. 2500 Lux
Brightness	250 to 750 cd/m <sup>2</sup> (depending on the viewing angle)
Brightness	250 to 750 cd/m <sup>2</sup> (depending on the viewing angle)
Case material	plastic/ASA
Case colour	white, RAL 9016
Light-diffusing cover	PMMA translucent
Dimensions	80 × 83 × 42 mm (H×W×D)
Weight	100 g



**No.: 21-1032500-01**

## LM-B light module

Call indication usable as overdoor light, for the optical signalling of calls, presences and reminder modes. Four indication fields for colour-coded indication in accordance with VDE 0834. The light module cannot be configured as a group or direction lamp. It requires additional power supply from the system switch or from the system power supply unit.

Suitable for wall mounting. For surface mounting, the corresponding APA-1 surface-mounted case is required; for flush mounting, a switch box installed in the wall must be required. Generally installed as an overdoor light in front of all rooms with a presence or call option.

- Discreet white light in idle mode
- Bright, eye-catching colours when active
- Diffuse, light-diffusing cover for evenly illuminated signs
- Four LED indication fields in the colours white, red, blue, green with three colour LED each

System compatibility	Visocall IP
Operating voltage range	15 to 30 V DC
Current consumption	60 mA with 1140 mW typ.
Interfaces	
System connection	1 × RJ-12 socket for connection to the Basic interface of a ZTD-B, ZTD-B-L, ZT-B, ZE-B or SM-B
24 V DC input	1 × rear screw terminal for power supply
Mounting	Surface or flush-mounted
Degree of protection	IP32, VDE 0834 Environmental class II
Ambient temperature	+5 °C to +40 °C
Relative air humidity	up to 95 % without condensation
Light sources	
Lighting intensity	max. 2500 Lux
Brightness	250 to 750 cd/m <sup>2</sup> (depending on the viewing angle)
Case material	plastic/ASA
Case colour	white, RAL 9016
Light-diffusing cover	PMMA translucent
Dimensions	80 × 83 × 54 mm (H×W×D)
Weight	100 g

## LM-C light module



**No.: 21-1042500-01**

Call indication usable as overdoor light, for the optical signalling of calls, presences and reminder modes. Five indication fields for colour-coded indication in accordance with VDE 0834. The light module can be configured as a direction lamp.

The component is a C-bus room component. It can be used in the course of upgrading a Visocall Plus system to Visocall IP with the existing wiring and is connected to the C-Bus/R.

Suitable for wall mounting. For surface mounting, the corresponding APA-1 surface-mounted case is required; for flush mounting, a switch box installed in the wall must be required. Generally installed as an overdoor light in front of all rooms with a presence or call option.

- Discreet white light in idle mode
- Bright, eye-catching colours when active
- Diffuse, light-diffusing cover for evenly illuminated signs
- Five LED indication fields in the colours white, red, blue, yellow, green with three colour LED each
- Up to four devices of the same type per room possible

System compatibility	Visocall IP, Visocall Plus
Operating voltage range	15 to 27.5 V DC
Current consumption	max. 4 mA with 100 mW 1.6 mA typ. with 40 mW
Interfaces/system connection	4 × four-wire plug-in terminals (with power supply) for connection to the C-bus/R interface of a ZTD-C, ZT-C or ZE-C or for connecting further room C-bus components.
Mounting	Surface or flush-mounted
Degree of protection	IP30, VDE 0834 Environmental class I
Ambient temperature	+5 °C to +40 °C
Relative air humidity	up to 95 % without condensation
Light sources	
Lighting intensity	max. 2500 Lux
Brightness	250 to 750 cd/m <sup>2</sup> (depending on the viewing angle)
Case material	plastic/ASA
Case colour	white, RAL 9016
Light-diffusing cover	PMMA translucent
Dimensions	80 × 83 × 55 mm (H×W×D)
Weight	98 g

## TXT text terminal



No.: FC008810



No.: FC008811



No.: FC008812



No.: FC008814

Large text indications for the grouped signalling of calls and reminder modes of several rooms under consideration of call priorities. The alphanumeric indication of the call location guides the staff to the call location by the shortest route. Equipped with a loudspeaker for acoustic signalling of calls and announcements. Available in different variants for ceiling or wall mounting.

For flush wall mounting, the TXT text terminal and two TXT-WH wall-mounted brackets are required. For ceiling mounting, the TXT-D and TXT-2D text terminals can be used without accessories. Generally installed in corridors, communal areas and in front of staff rooms.

- Indication of calls and reminder modes of several rooms under consideration of call priorities
  - Alphanumeric indication of group/ward, room and bed
  - Indication of group/ward and room as abbreviations (three characters)
- Alternating indication of time and date in idle mode
- Character height eight centimetre
- Up to twelve characters can be displayed simultaneously
- 80 self-luminous LED per character
- Loudspeakers for the acoustic signalling of calls and for announcements
- Models with a display and loudspeaker:
  - TXT text terminal (flush wall mounting)
  - TXT-W text terminal (wall mounting at a right angle)
  - TXT-D text terminal (ceiling mounting)
- Models with two opposite displays and two loudspeakers:
  - TXT-2D text terminal (ceiling mounting)
- The TXT-D and TXT-2D text terminals can be mounted at a distance between 82 cm and 100 cm from the ceiling

System compatibility	Visocall IP, Visocall Plus
Operating voltage	24 V DC
Interfaces/system connection	Block terminal for the connection of a VTX-IP or V-TXT (RS-485 and RS-232 interface with power supply and contacts for an analogue audio signal)
Mounting	Surface mounting
Environmental class	I (according to VDE 0834)
Case material	aluminium
Case colour	white, RAL 9016
Dimensions per display	978 × 110 × 40 mm (H×W×D)
Weight	
TXT, TXT-D	approx. 4 kg
TXT-2D	approx. 7.5 kg



**No.: Upon request**

## On-screen indications

The L4-VDVI-IP hardware interface enables the use of monitors and TV sets via DVI connection for indicating calls and reminder modes. Generally installed in corridors, where they are used for the grouped indication for several rooms. The alphanumeric indication can indicate two calls (or reminder modes), under consideration of the call priorities, at a time. In case of more than two calls, all calls will be indicated alternately. Calls and reminder modes are colour-coded. Texts of groups/wards, rooms and beds are indicated at full length.

## Call indications and accessories

	Designation	Type	Article no.
	<b>LM-IO light module</b>	LM-IO	21-1022500-01
	<b>LM-B light module</b>	LM-B	21-1032500-01
	<b>LM-C light module</b>	LM-C	21-1042500-01
	<b>TXT text terminal</b>	TXT	FC008810
	<b>Text terminal TXT-W</b>	TXT-W	FC008811
	<b>Text terminal TXT-D</b>	TXT-D	FC008812
	<b>Text terminal TXT-2D</b>	TXT-2D	FC008814
	<b>AP-1 surface-mounted case</b>	APA-1	21-1002021-01
	<b>AP-2 surface-mounted case</b>	APA-2	21-1002022-01
	<b>Flush-mounted switch box</b>	U1	FC88010
	<b>Flush-mounted switch box</b> for brick walls, 60x66 mm (DxH)	U1 66	21-2400003-01
	<b>Cavity wall switch box, round</b>	H1	21-2400000-01
	<b>Cavity wall switch box</b> 68x62 mm (DxH)	H1 62	21-2400002-01
	<b>Double flush-mounted switch box</b>	U2	FC88012
	<b>Double cavity wall switch box</b>	H2	FC88013

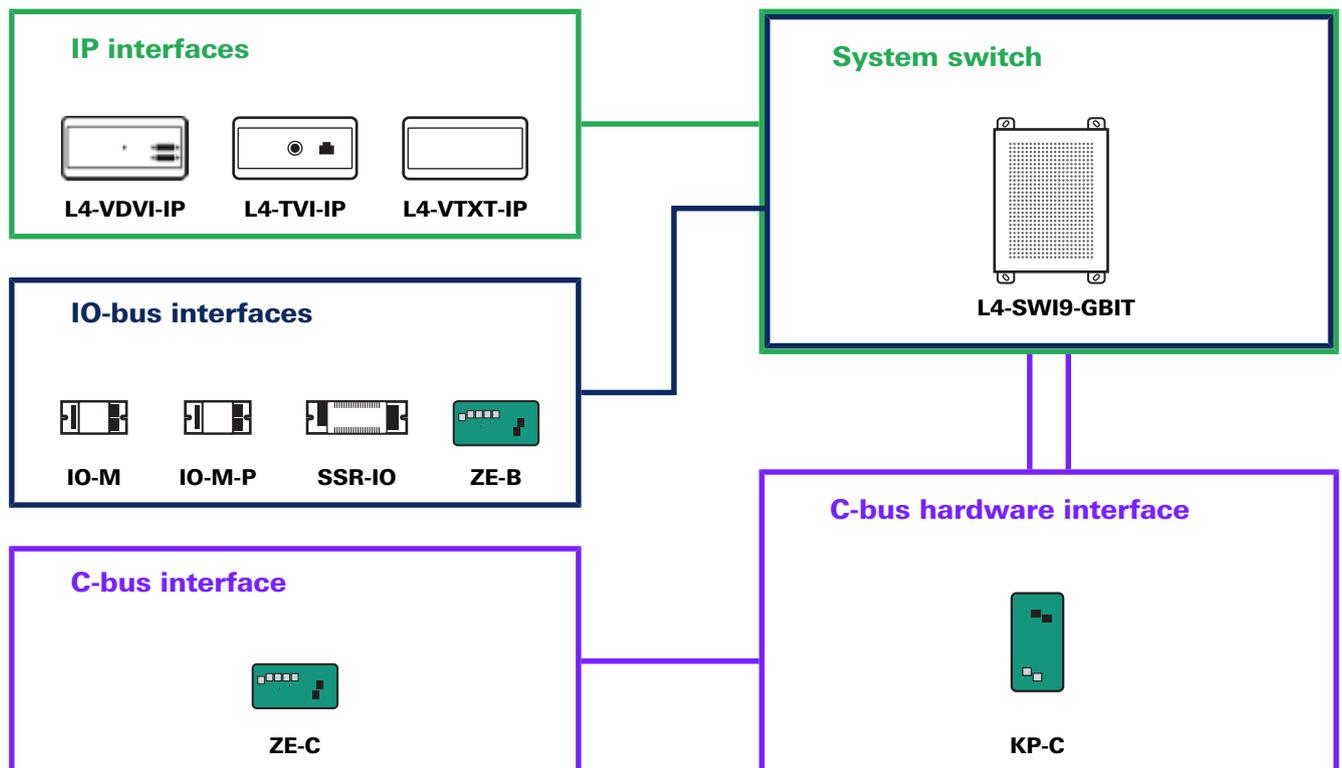
## 2.9 Hardware interfaces

Hardware interfaces are parts of the call system which serve as physical connection components for other systems. They enable audio systems, display devices, TV sets, light and blind controls, etc. to be integrated in the call system. The only exception are the room electronics which serve the connection of Basic devices.

Hardware interfaces can be broken down into two groups depending on their connection options:

- IP interfaces are connected to the IP port of a system switch.
- IO-bus interfaces are connected to the IO-bus of a system switch.
- C-bus interface is connected to the system switch via a C-bus hardware interface.

The system connection is implemented as outlined via an IP port, an IO-bus or a C-bus interface, depending on the component.



Connection scheme hardware interfaces

## 2.9.1 Product overview

Features	L4-VDVI-IP	L4-VTXT-IP	L4-TVI-IP	IO-M-P	IO-M	SSR-IO	KP-C	ZE-B	ZE-C
Sockets for on-screen indications	•								
Sockets for text terminals		•							
Sockets for system TV			•						
Relay outputs controllable via the call system				•	•				
Potential-free inputs to the call system					•				
Potential-loaded inputs to the call system				•					
Controllable electric circuits via the call system (light control)						•			
Connection to basic devices								•	
Connection of C-bus devices									•
Separate power supply		•							
Connection to SWI9 via IP port	•	•	•						
Connection to SWI9 via IO-bus				•	•	•	•	•	
Connection to SWI9							•		
Connection of C-bus hardware interfaces							•		
Connection to SWI9 via C-bus hardware interface KP-C									•

## L4-VDVI-IP connection distributor DVI monitor



**No.: 21-1013013-01**

Hardware interface for the connection of one or two monitors for use as on-screen indications (grouped indication of calls and reminder modes). The alphanumeric indication of the call location guides the staff to the call location by the shortest route.

Suitable for wall mounting. For surface mounting, the corresponding APA-2 surface-mounted case is required; for flush mounting, a double switch box installed in the wall must be required. Generally installed in corridors, communal areas and in front of staff rooms.

- Two DVI-D sockets for the connection of one monitor or TV each
- Image output with 1280 × 720 pixels and 60 Hz (720p60)
- Indication of calls and reminder modes of several rooms under consideration of call priorities
- Display texts with a coloured background
- Simultaneous indication of two calls (or reminder modes); with more than two calls, all calls will be indicated alternately
- Indication of time and date in idle mode (optionally also permanently; this will enable only once call to be displayed at a time)
- Integrated sound generator for call signalling

System compatibility	Visocall IP
Operating voltage range	18.5 to 30 V DC
Current consumption	1.5 W typ. with two connected monitors 2.5 W max. (= 125 mA/20 V)
Interfaces	
System connection	1 × 100Base-TX with PoE for connection to a SWI9
Monitor/TV connection	2 × DVI-D sockets for the connection of one monitor or TV set (image output in 720p60)
Mounting	Surface or flush-mounted
Degree of protection	IP30, VDE 0834 Environmental class I
Ambient temperature	+5 °C to +40 °C
Relative air humidity	up to 95 % without condensation
Case material	plastic/ABS
Case colour	white, RAL 9016
Dimensions	83 × 160 × 34 mm (H×W×D)
Weight	158 g

## L4-VTXT-IP connection distributor



No.: 21-1013012-01

Hardware interface for the connection of one or two text terminals. Controls the text and audio output of connected text terminals.

A LAN interface is used for integration into the Visocall IP system. When a L4-VTXT-IP is not integrated into a Visocall IP system, the data to be indicated can be transmitted to the text terminals via an RS-232 or an RS-485 interface.

A passive loudspeaker may be connected to one of the audio outputs. Active amplifiers are not allowed.

Suitable for wall mounting. For surface mounting, the corresponding APA-2 surface-mounted case is required; for flush mounting, a double switch box installed in the wall must be required. Generally installed in corridors, communal areas and in front of staff rooms.

- The following articles use a connection of the L4-VTXT-IP:
  - TXT text terminal
  - TXT-W text terminal
  - TXT-D text terminal
- The following articles use both connections of the L4-VTXT-IP:
  - TXT-2D text terminal

System compatibility	Visocall IP
Operating voltage range	20 to 30 V DC
Current consumption	
without text terminals	approx. 36 mA (approx. 0.9 W) at 24.0 V typ.
without text terminals, with an additional external 8 Ohm 24 V loudspeaker	approx. 52 mA (approx. 1.3 W) at max.
Interfaces	
System connection	1 × RJ-45 socket for connection to a SWI9
24 V DC input	1 × screw terminals for power supply
Text terminal connectors	2 × Connections for 2 text terminals (RS485 with power supply and audio output)
External output	Interface for RS-232 or RS-485 and audio input
Mounting	Surface or flush-mounted
Degree of protection	IP30, VDE 0834 Environmental class I
Ambient temperature	+5 °C to +40 °C
Relative air humidity	5 to 85% without condensation
Case material	plastic/ABS
Case colour	white, RAL 9016
Dimensions	83 × 160 × 36 mm (H×W×D)
Weight	155 g

## L4-TVI-IP TV interface



**No.: 21-1013011-01**

Hardware interface for controlling a connected system TV and for picking up its sound or feeding it into the Visocall IP system. A 100Base-TX interface is used to connect external TV sets to the network.

Suitable for wall mounting. For surface mounting, the corresponding APA-2 surface-mounted case is required, for flush mounting, a double switch box installed in the wall must be provided for. Generally mounted in patient rooms and common rooms.

- Supports TV sets various manufacturers
- TV set can be configured as a room TV or bed TV
- Control of the TV via one or several patient terminals
- Audio output via the TV or the allocated patient terminals

System compatibility	Visocall IP
Operating voltage range	20 to 30 V DC
Current consumption	approx. 36 mA with 24 V
Interfaces	
System connection	1 × 100Base-TX with PoE for connection to a SWI9
Connection TV set	1 × 8-pin DIN socket 45326, galvanically isolated RS-232: RXD, TXD CMOS: RXD, TXD, level: 3.3 V CMOS Audio input: based on IEC 61938
Network connection for TV set	100Base-TX, galvanically isolated
Mounting	Surface or flush-mounted
Degree of protection	IP30, VDE 0834 Environmental class I
Ambient temperature	+5 °C to +40 °C
Relative air humidity	up to 95 % without condensation
Case material	plastic/ABS
Case colour	white, RAL 9016
Dimensions	83 × 160 × 32 mm (H×W×D)
Weight	120 g

## IO-M input/output module



**No.: 21-1023000-01**

Bidirectional hardware interface as a bidirectional and potential-free interface for the connection of third-party components with three inputs and three outputs for the control of electric blinds and other independent consumers via patient terminals.

Two screws are required for surface mounting; the devices are generally installed in false ceilings.

- Receipt of status messages from external devices (inputs)
- Transmission of status messages to external devices (outputs)
- Three relay outputs, configurable as normally open contact or normally closed contact

Three potential-loaded inputs for the connection of potential-free contacts. Galvanic isolation through optocouplers

System compatibility	Visocall IP
Operating voltage range	15 to 27 V DC
Current consumption	2 mA with 38 mW typ.
Interfaces	
System connection	2 × RJ-45 sockets to the IO bus
Terminal strip	1 × screw terminal strip (wire thickness up to 1.5 mm <sup>2</sup> )
Relay outputs	
Switching voltage	0.01 to 60 V DC
Switching current	0.01 to 2000 mA
Switching capacity	60 W (60 V/1 A)
Switching frequency	max. 100 Hz (every 10 ms, a relay can change its status)
Pulse emission	0.001 to 2.56 s (10 ms intervals)
Wiring length	max. 200 m
Inputs	
Voltage range	15 to 30 V DC
Input resistance	4990 Ω
Input current	max. 6 mA
Wiring length	max. 200 m
Mounting	Surface mounting
Degree of protection	IP32, VDE 0834 Environmental class II
Ambient temperature	+5 °C to +40 °C
Relative air humidity	up to 95 % without condensation
Case material	Plastic
Case colour	white
Dimensions	42 × 85 × 26 mm (H×W×D)
Weight	41 g

## IO-M-P input/output module



**No.: 21-1023001-01**

Bidirectional hardware interface as a bidirectional and potential-free interface for the connection of third-party components with three inputs and three outputs for the control of electric blinds and other independent consumers via patient terminals.

Two screws are required for surface mounting; the devices are generally installed in false ceilings.

- Receipt of status messages from external devices (inputs)
- Transmission of status messages to external devices (outputs)
- Three relay outputs, configurable as normally open contact or normally closed contact

Three potential-loaded inputs for the connection of potential-free contacts. Galvanic isolation through optocouplers

System compatibility	Visocall IP
Operating voltage range	15 to 27 V DC
Current consumption	2 mA with 38 mW typ.
Interfaces	
System connection	2 × RJ-45 sockets to the IO bus
Terminal strip	1 × screw terminal strip (wire thickness up to 1.5 mm <sup>2</sup> )
Relay outputs	
Switching voltage	0.01 to 60 V DC
Switching current	0.01 to 2000 mA
Switching capacity	60 W (60 V/1 A)
Switching frequency	max. 100 Hz (change of state every 10 ms)
Pulse emission	0.001 to 2.56 s (10 ms intervals)
Wiring length	max. 200 m
Inputs	
Query current	9 mA
Query voltage	3 to 6 V DC
Terminal resistor	180 Ω (monitored inputs)
Alarm resistor	180 Ω (monitored inputs)
Line resistance	max. 30 Ω
Query impulse/cycle	100 μs/100 ms
Wiring length:	max. 50 m
Period duration	>1 s (switching states with a duration of longer than 300 ms and with a repeat time of over 1 s are detected)
Mounting	Surface mounting
Degree of protection	IP32, VDE 0834 Environmental class II
Ambient temperature	+5 °C to +40 °C
Relative air humidity	up to 95 % without condensation
Case material	Plastic
Case colour	white
Dimensions	42 × 85 × 26 mm (H×W×D)
Weight	41 g

**No.: 21-1023004-01**

## SSR-IO latching relay

Hardware interface for switching one or two separate circuits. A circuit can be additionally activated via a light switch. This is generally used for the control of room and reading lights via patient handsets. At least two centimetre space must be left around the ventilation slits.

Output 1 can additionally be activated via a commercial light switch (function provided also without call system). The power supply is provided via the 230 VAC input (L). The wiring diagram is printed on the case.

Two screws are required for surface mounting; the devices are generally installed in false ceilings.

System compatibility	Visocall IP
Operating voltage	
Primarily via the input (L)	230 V AC +10 %/-15 %
Alternatively via IO-bus	10 to 30 V DC
Current consumption	0.9 mA with 17.1 mW typ.
Interfaces	
System connection	2 × RJ-45 sockets for connection to the IO-bus of a SWI9 (RS-485 interface with power supply)
Terminal strip	1 × plug-in terminal strip for relay output and input (wire diameter up to 1.5 mm <sup>2</sup> )
Relay outputs	
Switching voltage	max. 260 V AC
Continuous current load	max. 8 A
Inrush current surge of the consumer	max. 165 A/20 ms or 800 A/200 us
Switching capacity upon opening	max. 4000 VA
Pushbutton input (SW)	
Input voltage	230 V AC +10 %/-15 %
Input current	6 mA typ.
Mounting	Surface mounting
Degree of protection	IP32, VDE 0834 Environmental class II
Ambient temperature	+5 °C to +40 °C
Relative air humidity	up to 95 % without condensation
Case material	Plastic
Case colour	white
Weight	156 g

## KP-C connector circuit board



**No.: 21-1043006-01**

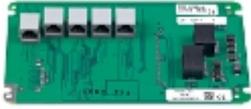
KP-C connector circuit board for updating Visocall Plus systems using C-bus components. The connector circuit board serves as an interface between the SWI9 system switch of the new Visocall IP system and the existing ward cabling of the Visocall Plus system.

Two RJ-45 sockets are provided for connection with Cat 5 cable to the SWI9 system switch (connections A2 and B2). Four four-wire plug-in terminals represent the C-bus/W interface and are used to connect the VCK-2 ward bus cable, which is connected to a ZTD-C, ZT-C or ZE-C at the other end. The connector circuit board passively forwards the signals arriving from the system switch.

The connector circuit board does not require an external power supply, but has two four-pole screw terminals that can be used for voltage distribution (24 V supply voltage from the power supply unit to the C-bus/W or system switch) if required.

System compatibility	Visocall IP, Visocall Plus
Operating voltage range	17 to 27.5 V DC
Current consumption	5 mA with 95 mW typ.
Interfaces	
System connection	2 × RJ-45 sockets for connection to ports A2 and B2 of a SWI9 system switch (RS-485 interface with power supply)
System connection (C-bus/W)	4 × four-wire plug-in terminals for connection to a ZTD-C, ZT-C or ZE-C
Mounting	Surface or flush-mounted
Degree of protection	IP30, VDE 0834 Environmental class I
Ambient temperature	+5 °C to +40 °C
Relative air humidity	5 to 95% without condensation
Dimensions	151 × 82 × 23 mm (H×W×D)
Weight	70 g

## ZE-B room electronics



**No.: 21-1023005-01**

Room electronics with an integrated controller circuit board for expanding the functions of individual rooms, suitable for mounting in electrical distributors, false ceilings etc., and for connecting up to five Basic components.

For surface mounting, the corresponding GH-ZE-B case and ZUB-ZE-B spacer are required. Generally installed in false ceilings.

- Five ports for basic components
- Connection to IO-bus of a system switch

System compatibility	Visocall IP
Operating voltage range	15 to 30 V DC
Current consumption	5 mA with 95 mW typ.
Interfaces	
System connection	2 × RJ-45 sockets for connection to the IO-bus of a SWI9 (RS-485 interface with power supply)
Basic interface	5 × RJ-12 sockets via which the Basic components can be connected to the system
Mounting	Surface mounting
Degree of protection	IP32, VDE 0834 Environmental class II
Ambient temperature	+5 °C to +40 °C
Relative air humidity	up to 95 % without condensation
Dimensions	80 × 151 × 19 mm (H×W×D)
Weight	69 g

## ZE-C room electronics



**No.: 21-1043005-01**

Room electronics with integrated controller circuit board for connecting C-bus/W and C-bus/R components for up to eight C-bus room devices.

The ZE-C is used for extension of a ZTD-C or ZT-C if more than 15 devices are required in a room or if no communication point is desired in the room.

C-bus components can be connected via existing Visocall Plus cabling (or similar topologies) to a ZTD-C, ZT-C or ZE-C, or from there via a KP-C to the SWI9 of a Visocall IP system. This way, existing Visocall Plus systems can be upgraded to Visocall IP.

For the signal lines, the usual plug-in terminals for Visocall Plus are used.

For surface mounting, the corresponding GH-ZE-B case and ZUB-ZE-B spacer are required. Generally installed in false ceilings.

- Connection to C-bus/W
- C-bus/R connections for up to 8 C-bus room devices
- Interface between Visocall IP and Visocall Plussystem technology
- Controller electronics with integrated controller circuit board
- Internal loudspeaker connection

System compatibility	Visocall IP, Visocall Plus
Operating voltage range	17 to 27.5 V DC
Current consumption	max. 21 mA with 500 mW typ.
24 V DC input	1 × two-pin Phoenix SMSTBA-2.5/2-G-5.08 strip
Current consumption	5 mA with 95 mW typ.
Interfaces	
System connection (C-bus/W)	5 × four-wire plug-in terminals for connection to a KP-C or another ZTD-C/ZT-C/ZE-C
C-bus/R interface	2 × 4 × four-wire plug-in terminal
Mounting	Surface mounting
Degree of protection	IP30, VDE 0834 Environmental class I
Ambient temperature	+5 °C to +40 °C
Relative air humidity	5 to 85% without condensation
Dimensions	80 × 151 × 19 mm (H×W×D)
Weight	69 g

## Cable for TV Interface



No.: 21-1002031-01



No.: 21-1002031-02



No.: 21-1002031-03



No.: 21-1002031-04

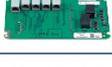


No.: 21-1002031-05

Cable with 8-pin DIN connector for connection of a system TV to a L4-TVI-IP TV interface. The cable is available in the following versions for connection to various TV sets.

- Connection cable for Philips TV sets:
  - **21-1002031-01:** Y-cable from SCART connector (angled) to DIN connector (straight, 1.5 m cable) and to 3-pin connection strip (0.2 m cable)
  - **21-1002031-02:** Y-cable emerging from DIN connector (straight) to RJ-45 connector (straight, 1.5 m cable) and to 3.5 mm jack plug (straight, 1.5 m cable)
  - **21-1002031-03:** Y-cable emerging from DIN connector (straight) to RJ-45 connector (straight, 3 m cable) and to 3.5 mm jack plug (straight, 3 m cable)
  - **21-1002031-04:** Y-cable emerging from DIN connector (straight) to RJ-45 connector (straight, 4 m cable) and to 3.5 mm jack plug (straight, 4 m cable)
  - **21-1002031-05:** Y-cable emerging from DIN connector (straight) to RJ-45 connector (straight, 1.5 m cable) and to 3.5 mm jack plug (angled, 1.5 m cable)

## Hardware interfaces and accessories

	Designation	Type	Article no.
	<b>Connection distributor DVI monitor</b>	L4-VDVI-IP	21-1013013-01
	<b>Connection distributor L4-VTXT-IP</b>	L4-VTXT-IP	21-1013012-01
	<b>L4-TVI-IP TV interface</b>	L4-TVI-IP	21-1013011-01
	<b>Input/output module IO-M</b>	IO-M	21-1023000-01
	<b>Input/output module IO-M-P</b>	IO-M-P	21-1023001-01
	<b>SSR-IO latching relay</b>	SSR-IO	21-1023004-01
	<b>KP-C connector circuit board</b>	KP-C	21-1043006-01
	<b>ZE-B room electronics</b>	ZE-B	21-1023005-01
	<b>Spacer for ZE-B</b> for the installation of room electronics ZE-B in a case GH-ZE-B	ZUB-ZE-B	FC88116
	<b>Case for ZE-B room electronics</b> for the installation of room electronics ZE-B	GH-ZE-B	FC88115
	<b>ZE-C room electronics</b>	ZE-C	21-1043005-01
	<b>Cable for TVI-IP PHILIPS</b> Length 1.5 m, SCART connector, connection strip	K-TVI-PHILIPS	21-1002031-01
	<b>Cable for TVI-IP PHILIPS</b> RJ-45, DIN, jack straight, 1.5 m	K-TVI-PHILIPS-2	21-1002031-02
	<b>Cable for TVI-IP PHILIPS</b> RJ-45, DIN, jack straight, 3 m	K-TVI-PHILIPS-3	21-1002031-03
	<b>Cable for TVI-IP PHILIPS</b> RJ-45, DIN, jack straight, 4 m	K-TVI-PHILIPS-4	21-1002031-04
	<b>Cable for TVI-IP PHILIPS</b> RJ-45, DIN, jack bent, 1.5 m	K-TVI-PHILIPS-5	21-1002031-05
	<b>AP-2 surface-mounted case</b>	APA-2	21-1002022-01
	<b>Double flush-mounted switch box</b>	U2	FC88012
	<b>Double cavity wall switch box</b>	H2	FC88013

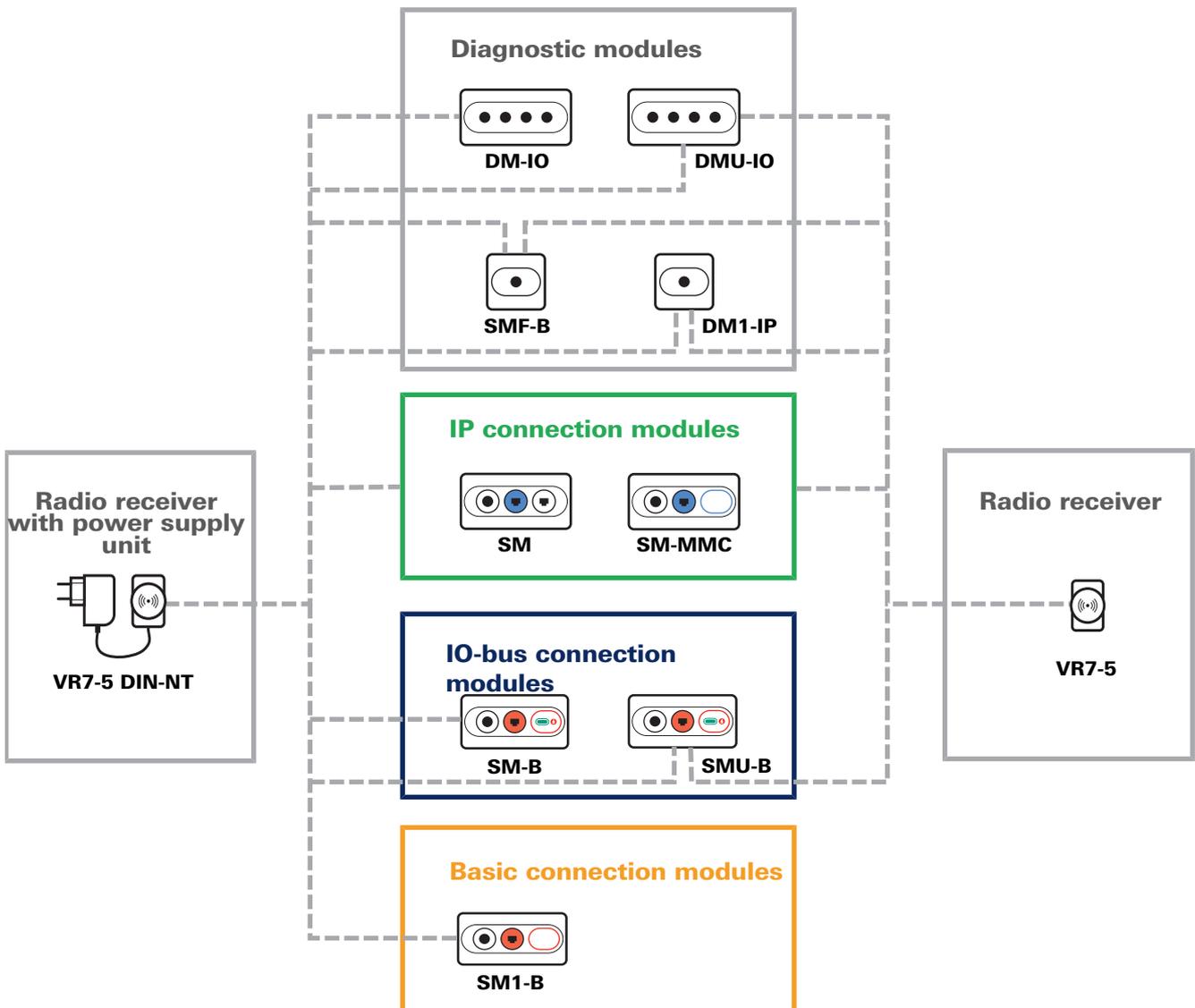
## 2.10 Radio components

Radio components for triggering calls can be integrated in a call system via radio receivers connected to a diagnostic socket. Call releasing components are available in various designs, e.g. as a combination radio transmitter, radio pull cord call switch, noise detector, etc.

Radio components can be broken down into two groups depending on their use:

- Radio transmitters are equipped with an element for triggering a call (push button, pull cord, audio sensors, etc.) and a transmission element that forwards the call via radio transmission.
- Radio receivers receive signals from the radio transmitters and forward a corresponding message to the call system.

System connection is implemented as outlined, depending on the model of the radio receiver, via a powered diagnostic socket or a diagnostic socket without power supply.



Connection scheme radio components

## 2.10.1 Product overview

Features	VR7-5 DIN-NT	VR7-5	F-VMPS-869	UF-ZS-869	F-RTS-869	F-ZS-869	F-PS-869	F-BS-869	MEDITOUCH-869	F-MP-869	CS BEC	F-WLS-869	F-GSM-869
Frequency 869 MHz	•	•	•	•	•	•	•	•	•	•	•	•	•
Integrated radio receiver	•	•											
Integrated radio transmitter			•	•	•	•	•	•	•	•	•	•	•
Battery operated			•	•	•	•	•	•	•	•	•	•	
Power supply via power supply unit	•												•
Power supply via call system		•											

## VR7-5 DIN-NT radio receiver



**No.: 21-2200003-01**

Radio receivers for the connection of call releasing radio components to a call system. Coupling of up to 63 compatible devices with transmitters within 869,2125 MHz frequency field. For wiring to all connection and diagnostic modules with safe isolation in accordance with DIN 60601-1/twice MOPP). Equipped with display for better menu navigation and alarm indication. A supplied power supply unit supplies the device with power.

System compatibility	Visocall IP
Operating voltage	24 V DC
Current consumption	approx. 20 mA
Interfaces	
System connection	1 x five-pin DIN connector for connection to a diagnostic socket of a SM, SM-MMC, SM-B, SMU-B, SM1-B, DM-IO, DMU-IO, DM1-IP or SMF-B
Radio receiver	869.2125 MHz receiver unit for coupling up to 64 radio transmitters
Radio range	up to 30 m in buildings, depending on spatial conditions
Degree of protection	IP50
Ambient temperature	-5 °C to +55 °C
Dimensions	66 x 46 x 18 mm (HxWxD)
Weight	50 g

## VR7-5 radio receiver



**No.: 21-2200004-01**

Radio receivers for the connection of call releasing radio components to a call system. Coupling of up to 63 compatible devices with transmitters within 869,2125 MHz frequency field. Equipped with display for better menu navigation and alarm indication. Power is supplied via the call system.

System compatibility	Visocall IP
Operating voltage	24 V DC
Current consumption	approx. 20 mA
Interfaces	
System connection	1 x five-pin DIN connector for connection to a diagnostic socket of a SM, SM-MMC, SM-B, SMU-B, SM1-B, DM-IO, DMU-IO, DM1-IP or SMF-B
Radio receiver	869.2125 MHz receiver unit for coupling up to 64 radio transmitters
Radio range	up to 30 m in buildings, depending on spatial conditions
Degree of protection	IP50
Ambient temperature	-5 °C to +55 °C
Dimensions	66 × 46 × 18 mm (H×W×D)
Weight	50 g

## F-VMPS-869 combination radio transmitter



No.: 21-2200500-01

Mobile hand transmitter with push button for the manual releasing of calls. Accessories for attaching the transmitter to the wrist (24 cm wristband) or on the body (neck strap, stretch strap) is supplied as standard. A compatible radio receiver unit is required for the receipt of the radio signal (VR7-5 or VR7-5 DIN-NT). A green presence or cancel button is required in the relevant room for cancelling calls.

- The pressing of a smooth-running button releases a call (care staff call) in the call system
- The status LED confirms radio transmission after pushing the button
- Calls are indicated by the call system at the relevant room
- Battery monitoring of connected transmitting devices with automatic warning message (on the radio receiver and in the call system)

System compatibility	Visocall IP
Battery type	CR2032
Radio frequency	869.2125 MHz (social alarm frequency)
Degree of protection	IP68
Push button	Ø 34 mm
Dimensions	46 x 43 x 10 mm (HxWxD)
Weight	25 g

## UF-ZS-869 radio pull cord switch



**No.: FC017987**

The radio pull cord call switch with lanyard can be used anywhere where cable connections to the connection box would interfere or are not available. Due to the additional pull cord call switch function (pull on the device or on an additional pull cord attached to it at the bottom), it is also suitable for people with restricted movement and can be used both hanging (e.g. attached to the bed rail) and in the usual call pushbutton positions. Thanks to the degree of protection IP 68, it can also be temporarily taken into the shower or hung from the side.

System compatibility	Visocall IP
Radio frequency	869.2125 MHz (social alarm frequency)
Transmission power	max. 10 mW
Call release	pull switch
Indications	LED call indication for call and battery message
Battery type	1 × CR2450, 3V lithium button cell battery
Radio range	up to 30 m in buildings, depending on spatial conditions
Tensile load	max. 10 kg
Degree of protection	IP68
Ambient temperature	0 °C to +55 °C
Dimensions	130 × 52 × 19 mm (H×W×D)
Weight with battery and lanyard	110 g

**No.: FC017986**

## F-RTS-869 radio call pushbutton

Universal, waterproof and disinfectable radio call pushbutton for wall-mounting with LED for call and battery indication and large, smooth-running touch surface with pressure point.

System compatibility	Visocall IP
Radio frequency	869.2125 MHz (social alarm frequency)
Call release	large pushbutton insert with 35 mm diameter
Indications	LED call indication for call and battery message
Battery type	1 × CR2450, 3V lithium button cell battery
Radio range	up to 30 m in buildings, depending on spatial conditions
Degree of protection	IP68
Ambient temperature	0 °C to +55 °C
Weight	approx. 35 g

## F-ZS-869 radio pull cord switch

**No.: FC017984**

Radio pull cord call switch for wall-mounting with LED for call and battery indication and large, smooth-running pushbutton surface with pressure point. The pull cord call switch is waterproof and can be disinfected, the pull-cord is coupled to the radio module via a rocker and with setpoint separation.

System compatibility	Visocall IP
Radio frequency	869.2125 MHz (social alarm frequency)
Call release	pull cord and push button
Indications	LED call indication for call and battery message
Battery type	1 × CR2450, 3V lithium button cell battery
Radio range	up to 30 m in buildings, depending on spatial conditions
Degree of protection	IP68
Ambient temperature	0 °C to +55 °C
Pull cord	approx. 2 m
Dimensions	74 × 14 mm (Ø×H)
Weight	approx. 80 g

## F-PS-869 radio pneumatic ball-type button



**No.: FC017988**

The radio pneumatic ball pushbutton serves as a call indication for persons with severe motor impairments. Due to its size and function, it is possible to trigger calls by applying very light pressure with the hand or other parts of the body.

The ball-type button is waterproof and disinfectable and consists of a large rubber ball that is connected to the wall sensor via a hose. The wall-mounted bracket contains the electronics and a red LED (call indication and battery status).

System compatibility	Visocall IP
Radio frequency	869.2125 MHz (social alarm frequency)
Call release	pressing the rubber ball
Indications	LED call indication for call and battery message
Battery type	1 × CR2450, 3V lithium button cell battery
Radio range	up to 30 m in buildings, depending on spatial conditions
Degree of protection	IP66
Ambient temperature	0 °C to +55 °C
Dimensions without plug-in part for pneumatic hose	15 × 80 mm (H×W)
Weight	210 g

## F-BS-869 radio motion sensor



**No.: 21-2200007-01**

Radio motion sensor system with numerous optional operating and setting options for detecting and alarm notification of a person's movements.

- Radio activation of call systems or accessories such as radio sockets
- 10-minute care time (no call is released during this time)
- Direction recognition
- Magnetic base, self-separating
- Rechargeable lithium-ion battery

System compatibility	Visocall IP
Radio frequency	869.2125 MHz (social alarm frequency)
Indications	LED function indications
Current consumption	Rechargeable battery 3.200 mAh
Dimensions	135 x 74 x 32 mm (HxWxD)
Weight	238 g
Degree of protection	IP42
Conformity	CE (RED RL, RoHS RL)

## MEDITOUCH-869 radio large bellows pushbutton



**No.: 21-2200103-01**

Large bellows pushbutton with large, sensitive triggering surface for people who cannot or can no longer operate a standard call pushbutton correctly due to geriatric conditions. Thanks to integrated highly sensitive pneumatic sensors, even the lightest pressure on the very large and slightly curved release surface is sufficient. A red circulating reassurance indication visually signals a raised call. The non-slip underside prevents accidental shifting.

System compatibility	Visocall IP
Radio frequency	869.2125 MHz (social alarm frequency)
Call release	large area sensor triggering
Indications	LED call indication for call and battery message
Battery type	1 × CR2450, 3V lithium button cell battery
Radio range	up to 30 m in buildings, depending on spatial conditions
Degree of protection	IP44
Ambient temperature	0 °C to +55 °C
Dimensions	35 × 110 mm (H×W)
Weight	approx. 195 g

## F-MP-869 radio cushion transmitter



**No.: FC017983**

Pneumatic radio cushion transmitter for releasing calls for people who can no longer operate normal call pushbuttons. Due to the all-round pressure sensitivity, any person who can still apply pressure or change position with a part of the body can trigger a call.

System compatibility	Visocall IP
Radio frequency	869.2125 MHz (social alarm frequency)
Call release	Pneumatic module, pressure area approx. 180 × 100 mm, both cushion sides sensitive
Indications	LED call indication for call and battery message
Battery type	1 × CR2450, 3V lithium button cell battery
Radio range	up to 30 m in buildings, depending on spatial conditions
Degree of protection	IP30 (cleanable and washable cover)
Ambient temperature	0 °C to +55 °C
Dimensions	150 × 225 × 45 mm (H×W×D)
Weight	170 g

## A01 radio sensor mat



**No.: 21-2210010-xx**

Pressure-sensitive radio sensor mat with built-in radio module for wireless transmission of a signal to the call system. As soon as a person in need of care leaves the bed and steps on the radio sensor mat, the alarm is triggered and the staff is informed.

System compatibility	Visocall IP
Radio transmitter	Lehmann electronic VarioRec®, 1 channel, unidirectional
Radio frequency	433.92 MHz or 869.2125 MHz (social alarm frequency)
Radio range	up to 30 m in buildings, depending on spatial conditions
Battery type	1 × CR2450, 3V lithium button cell battery
Degree of protection	IP54
Chemical resistivity	water, body fluids, commercial disinfection agents, max. 70 percent alcohol by volume
Ambient temperature	0 °C to +55 °C
Case material	polyurethane
Surface material	nubbed structure with bevelled edges
Weight load for call release	min. 10 kg
Dimensions	700 × 1100 × 9 mm (H×W×D)
Weight	8.2 kg

## B01 radio sensor mat



**No.: 21-2210011-xx**

Pressure-sensitive radio sensor mat with built-in radio module for wireless transmission of a signal to the call system. As soon as a person in need of care leaves the bed and steps on the radio sensor mat, the alarm is triggered and the staff is informed.

System compatibility	Visocall IP
Radio transmitter	Lehmann electronic VarioRec®, 1 channel, unidirectional
Radio frequency	433.92 MHz or 869.2125 MHz (social alarm frequency)
Radio range	up to 30 m in buildings, depending on spatial conditions
Battery type	1 × CR2450, 3V lithium button cell battery
Degree of protection	IP54
Chemical resistivity	water, body fluids, commercial disinfection agents, max. 70 percent alcohol by volume
Ambient temperature	0 °C to +55 °C
Case material	polyurethane
Surface material	nubbed structure with bevelled edges
Weight load for call release	min. 10 kg
Dimensions	700 × 400 × 9 mm (H×W×D)
Weight	3.2 kg



**No.: 21-2210012-xx**

## C01 radio sensor mat

Pressure-sensitive radio sensor mat with built-in radio module for wireless transmission of a signal to the call system. As soon as a person in need of care leaves the bed and steps on the radio sensor mat, the alarm is triggered and the staff is informed.

System compatibility	Visocall IP
Radio transmitter	Lehmann electronic VarioRec®, 1 channel, unidirectional
Radio frequency	433.92 MHz or 869.2125 MHz (social alarm frequency)
Radio range	up to 30 m in buildings, depending on spatial conditions
Battery type	1 × CR2032, 3V lithium button cell battery
Degree of protection	IP54
Chemical resistivity	water, body fluids, commercial disinfection agents, max. 70 percent alcohol by volume
Ambient temperature	0 °C to +55 °C
Case material	polyurethane
Surface material	nubbed structure with bevelled edges
Weight load for call release	min. 10 kg
Dimensions	700 × 1100 × 9 mm (H×W×D)
Weight	6.5 kg

## CS BEC CareSens bed-rise monitoring



**No.: 21-2201001-01**

Contact mat and motion sensor in one product. The sensor is placed at the side of the end of the bed. The care staff can set it to active or inactive with their foot without releasing a call.

The non-slip base and the particularly flat design protect against unintentional slipping or falling over and thus against functional failure.

System compatibility	Visocall IP
Radio frequency	869.2125 MHz (social alarm frequency)
Radio range	up to 30 m in buildings, depending on spatial conditions
Function indication	red LED
Sensor range	up to 5 m
Battery type	1 × CR2430, 3V lithium button cell battery
Degree of protection	IP53
Dimensions	180 × 120 × 12 mm (H×W×D)
Weight	approx. 310 g

**No.: 21-2200101-01**

## F-WLS-869 radio wandering detection

The radio wandering detection (door transmitter module) is mounted on the outside of the door handle. Staff activate the system using a magnetic key directly on the unit or externally via a wireless transmitter. The status is displayed visually. If the handle is actuated in the active state, the call is released wireless with a message to the call system.

System compatibility	Visocall IP
Radio frequency	869.2125 MHz (social alarm frequency)
Call release	pressing down the door handle
Handle adjustment	universally usable
Battery monitoring	signal when battery voltage is below 20 %, every time of a call release and automatically once a day
Battery type	1 × CR2450, 3V lithium button cell battery
Radio range	up to 30 m in buildings, depending on spatial conditions
Degree of protection	IP20
Ambient temperature	0 °C to +55 °C
Dimensions	95 × 53 × 21 mm (H×W×D)
Weight	approx. 115 g

**No.: 21-2200102-01**

## F-GSM-869 radio noise detector

Highly sensitive noise detector in desktop case with intelligent speech level evaluation. Sensitivity and response time behaviour are adjustable via rotary knob.

System compatibility	Visocall IP
Operating voltage	24 V DC/30 mA
Call release	sound detection (sensitivity and response behaviour adjustable), additional call button with nurse symbol
Indications	LEDs for operation, switching and reassurance indication
Indications	LEDs for operation, switching and reassurance indication
Degree of protection	IP44
Ambient temperature	0 °C to +55 °C
Dimensions	110 × 30 × 50 mm (H×W×D)
Weight	approx. 125 g

## Radio components and accessories

	Designation	Type	Article no.
	<b>VR7-5 DIN-NT radio receiver</b> for connection to Visocall IP, 869 MHz, power supply via power supply unit	VR7-5 DIN-NT	21-2200003-01
	<b>VR7-5 radio receiver</b> for connection to Visocall IP, 869 MHz, power supply via call system	VR7-5	21-2200004-01
	<b>F-VMPS-869 combination radio transmitter</b> 869 MHz, IP68, incl. battery (CR2032), 24 cm stretch wristband, neck strap, 2 x replacement clip D, stretch strap	F-VMPS-869	21-2200500-01
	<b>Replacement inlay</b> for radio combination transmitter, 1 pc.	F-VMS-INLAY	ZZH0799507
	<b>Replacement seal</b> for radio combination transmitter, 1 pc.	F-VMS-ED	ZZH0799508
	<b>Replacement cord</b> for radio combination transmitter, approx. 96 cm, protective automatic opening function under stress	F-VMS-KOR	FC007996
	<b>Stretch wristband (replacement)</b> for radio combination transmitter, 1 pc. length 24 cm, with clip fastener	F-VMS-BAND-24	FC007957-B
	<b>Stretch wristband (replacement)</b> for radio combination transmitter, 1 pc. length 27 cm, with clip fastener	F-VMS-BAND-27	FC007957-B_27
	<b>Replacement clip D (spare)</b> for radio combination transmitter, 50 pc.	F-VMS-BOLT	ZZH0799504
	<b>Repair kit (replacement)</b> for radio combination transmitter, 10 pcs. à 10 sets	F-VMS-ERS	ZZH0799505
	<b>Repair complete kit (replacement)</b> for radio combination transmitter, 13 pcs. à 5 sets	F-VMS-RKS	ZZH0799506
	<b>Radio pull cord call switch</b> with Lanyard, 869 MHz, IP68, incl. battery (CR2032)	UF-ZS-869	FC017987
	<b>Radio call pushbutton</b> for wall-mounting, 869 MHz, IP68, incl. battery (CR2032)	F-RTS-869	FC017986
	<b>Radio pull cord call switch</b> for wall-mounting, 869 MHz, IP68, incl. battery (CR2032)	F-ZS-869	FC017984

	<b>Designation</b>	<b>Type</b>	<b>Article no.</b>
	<b>Holder (replacement)</b> for radio pull cord call switch, 5 pc.	F-ZS-ERS	FC017985
	<b>Radio pneumatic ball pushbutton</b> for wall-mounting, 869 MHz, IP68, incl. battery (CR2032)	F-PS-869	FC017988
	<b>Radio motion sensor</b> 869.2125 MHz (social alarm frequency) default equipment	F-BS-869	21-2200007-01
	<b>Replacement ball and hose (replacement)</b> for radio pneumatic ball-type button F-PS-869	F-PS-EK	FC017989
	<b>Radio large bellows pushbutton</b> 869 MHz, IP44, incl. battery (CR2450)	MEDITOUCH-869	21-2200103-01
	<b>Wall-mounted bracket for radio large bellows pushbutton</b> for magnetic mounting	MEDITOUCH-WH	21-2200110-01
	<b>Radio cushion transmitter</b> incl. acoustic reassurance, 869 MHz, IP30, incl. battery (CR2450)	F-MP-869	FC017983
	<b>Spare parts for radio cushion transmitter</b> consists of 1 x cushion case, 2 x velcro straps, 4 x adhesive dots	F-MP-ES	ZZL10740
	<b>Radio sensor mat, 1100 x 700 x 9 mm</b> with radio module 433 MHz	A01T-L433	21-2210010-02
	<b>Radio sensor mat, 1100 x 700 x 9 mm</b> with radio module 869 MHz	A01T-L869	21-2210010-03
	<b>Radio sensor mat, 1100 x 700 x 9 mm</b> with empty case for radio module	A01D	21-2210010-04
	<b>Radio sensor mat 700 x 400 x 9 mm</b> with radio module 433 MHz	B01T-L433	21-2210011-02
	<b>Radio sensor mat 700 x 400 x 9 mm</b> with radio module 869 MHz	B01T-L869	21-2210011-03
	<b>Radio sensor mat 700 x 400 x 9 mm</b> with empty case for radio module	B01E	21-2210011-04
	<b>Radio sensor mat 1100 x 700 x 9 mm</b> semicircular, with radio module 433 MHz	C01T-L433	21-2210012-02
	<b>Radio sensor mat 1100 x 700 x 9 mm</b> semicircular, with radio module 869 MHz	C01T-L869	21-2210012-03
	<b>Radio sensor mat 1100 x 700 x 9 mm</b> semicircular, with empty case for radio module	C01E	21-2210012-04
	<b>Radio transmitter insert (replacement)</b> for installation in a radio sensor mat, 869 MHz, incl. battery (CR2032)	RTM-L869	21-2200550-01
	<b>CareSens</b> Bed-rise monitoring	CS BEC	21-2201001-01

	<b>Designation</b>	<b>Type</b>	<b>Article no.</b>
	<b>Radio wandering detection</b> for installation on a door handle, 869 MHz, IP40, incl. battery (CR2032)	F-WLS-869	21-2200101-01
	<b>Radio noise detector</b> for set-up on an even surface, 869 MHz, incl. power supply unit	F-GSM-869	21-2200102-01

## 2.11 Call devices for special applications

According to VDE 0834-1:2016-06, call devices for special applications are *call-triggering devices with special equipment and/or sensors for call release, e.g. movement, air pressure, moisture, particularly for use by people with limited mobility*. Corresponding products are listed hereunder. All articles integrated in the Visocall IP call systems by radio transmission are listed together in a separate chapter.

The system connection is implemented using cables via an AD-DIA diagnostic adapter to a diagnostic socket.

### 2.11.1 Product overview

Features	A01C	B01C	C01C	MEDIT-OUCH-Intellifix	DADO
Call release through pressure	•	•	•	•	•
System connection via AD-DIA	•	•	•		
System connection via the red Intellifix socket of a connection module				•	
Power supply via power supply unit					

## A01C sensor mat



**No.: 21-2210010-01**

Pressure-sensitive sensor mat for transmitting a signal to the call system. As soon as a person in need of care leaves the bed and steps on the sensor mat, the alarm is triggered and the staff is informed. A diagnostic adapter is required for connection to a call system.

- Flat design with bevelled edges to prevent tripping
- Actuation via NO contact
- 3 metre cable with open ends
- Anti-slip and easy to clean surface
- Suited for damp cleaning and disinfection

System compatibility	Visocall IP, Visocall Plus
Electrical load capacity	max. 50 mA with 48 V AC/DC
Interfaces/system connection	open cable ends 4 × 0.34 mm <sup>2</sup> for connection to a powered diagnostic socket via an AD-DIA diagnostic adapter
Degree of protection	IP54
Chemical resistivity	water, body fluids, commercial disinfection agents, max. 70 percent alcohol by volume
Ambient temperature	0 °C to +55 °C
Cable length	3 m, Ø 5.2 mm, white
Material	polyurethane
Surface material	nubbed structure with bevelled edges
Weight load for call release	min. 10 kg
Dimensions	700 × 1100 × 9.5 mm (H×W×D)
Cable inlet	14.5 mm deep
Weight	8.2 kg

## B01C sensor mat



**No.: 21-2210011-01**

Pressure-sensitive sensor mat for transmitting a signal to the call system. As soon as a person in need of care leaves the bed and steps on the sensor mat, the alarm is triggered and the staff is informed. A diagnostic adapter is required for connection to a call system.

- Flat design with bevelled edges to prevent tripping
- Actuation via NO contact
- 3 metre cable with open ends
- Anti-slip and easy to clean surface
- Suited for damp cleaning and disinfection

System compatibility	Visocall IP, Visocall Plus
Electrical load capacity	max. 50 mA with 48 V AC/DC
Interfaces/system connection	open cable ends 4 × 0.34 mm <sup>2</sup> for connection to a powered diagnostic socket via an AD-DIA diagnostic adapter
Degree of protection	IP54
Chemical resistivity	water, body fluids, commercial disinfection agents, max. 70 percent alcohol by volume
Ambient temperature	0 °C to +55 °C
Cable length	3 m, Ø 5.2 mm, white
Material	polyurethane
Surface material	nubbed structure with bevelled edges
Weight load for call release	min. 10 kg
Dimensions	400 × 700 × 9.5 mm (H×W×D)
Cable inlet	14.5 mm deep
Weight	3.2 kg

## C01C sensor mat



**No.: 21-2210012-01**

Pressure-sensitive sensor mat for transmitting a signal to the call system. As soon as a person in need of care leaves the bed and steps on the sensor mat, the alarm is triggered and the staff is informed. A diagnostic adapter is required for connection to a call system.

- Flat design with bevelled edges to prevent tripping
- Actuation via NO contact
- 3 metre cable with open ends
- Anti-slip and easy to clean surface
- Suited for damp cleaning and disinfection

System compatibility	Visocall IP, Visocall Plus
Electrical load capacity	max. 50 mA with 48 V AC/DC
Interfaces/system connection	open cable ends 4 × 0.34 mm <sup>2</sup> for connection to a powered diagnostic socket via an AD-DIA diagnostic adapter
Degree of protection	IP54
Chemical resistivity	water, body fluids, commercial disinfection agents, max. 70 percent alcohol by volume
Ambient temperature	0 °C to +55 °C
Cable length	3 m, Ø 5.2 mm, white
Material	polyurethane
Surface material	nubbed structure with bevelled edges
Weight load for call release	min. 10 kg
Dimensions	1100 × 700 × 9.5 mm (H×W×D)
Cable inlet	14.5 mm deep
Weight	6.5 kg

## MEDITOUCH-INTELLIFIX large bellows pushbutton



**No.: 21-2200106-01**

Large bellows pushbutton with large, sensitive triggering surface for people who cannot or can no longer operate a standard call pushbutton correctly due to geriatric conditions. Thanks to integrated highly sensitive pneumatic sensors, even the lightest pressure on the very large and slightly curved release surface is sufficient. A red circulating reassurance indication visually signals a raised call. The non-slip underside prevents accidental shifting.

System compatibility	Visocall IP
Operating voltage	24 V DC
Call release	large area sensor triggering
Degree of protection	IP44
Ambient temperature	0 °C to +55 °C
Dimensions	35 × 110 mm (H×W)
Weight	approx. 290 g

## DADO 1050 mm panic bar



No.: 21-2210001-01

The alarm switch/signal device responds along its entire length, making it ideal for situations where a long, continuous alarm switch is needed. Lengths of up to several kilometers are possible. The system is simple, robust and reliable. The alarm switch consists of three parts: the base part made of aluminium, a waterproof belt switch and the cover made of TPE.

Length	1050 mm
Bandswitch	141BPH red
Connection	Closing contact max. 30 V at 1 A
Cable type	LIYY 2 × 0,25 mm <sup>2</sup>
Cable length	2 × 2000 mm
Degree of protection	IP65



**No.: 21-2210110-01**

## W24-2 compact photoelectric sensor

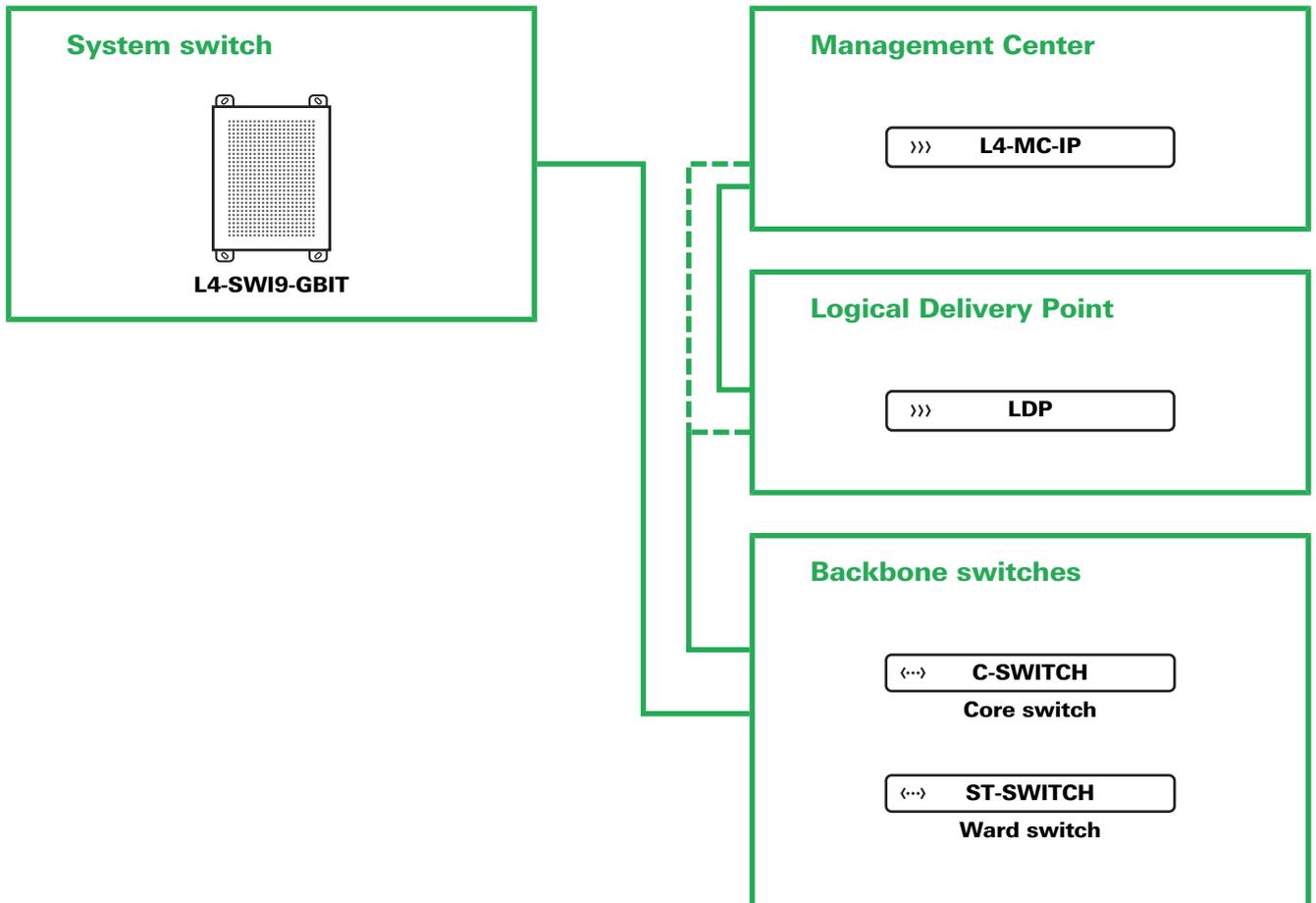
Weatherproof retro-reflective photoelectric sensor with double lens and potentiometer.

Operating voltage range	20 to 250 V AC/V DC
Current consumption	max. 3 VA
Sensor/detection principle	retro-reflective photoelectric sensor, double lens
Switching output	relay, galvanically isolated
Switching function	changer
Switching mode	light/dark switching, selectable via light/dark changeover switch
Switching frequency	10 Hz with light/dark ratio 1:1
Response time	max. 10 ms
Degree of protection	IP67
Ambient temperature	-40 °C to +55 °C
Dimensions	87.5 × 27 × 65 mm (H×W×D)
Weight	330 g

## Call devices for special applications and accessories

	Designation	Type	Article no.
	<b>Sensor mat 1100 x 700 x 9 mm</b> with 3 m connection cables and open cable ends	A01C	21-2210010-01
	<b>Sensor mat 700 x 400 x 9 mm</b> with 3 m connection cables and open cable ends	B01C	21-2210011-01
	<b>Sensor mat semicircular 700 x 400 x 9 mm</b> with open cable ends	C01C	21-2210012-01
	<b>External transmission adapter</b> in order to equip a wired sensor mat with radio, 869 MHz, battery: CR2032	F-SAD-869	FC017998
	<b>Diagnostic adapter AD-DIA</b> for the connection of external call transmitters, with 2.5 m connection cable and open cable ends	AD-DIA	21-1002000-01
	<b>Large bellows pushbutton</b> for Visocall IP	MEDITOUCH-INTELLI-FIX	21-2200106-01
	<b>Wall-mounted bracket for radio large bellows pushbutton</b> for magnetic mounting	MEDITOUCH-WH	21-2200110-01
	<b>Panic bar DADO 1050 mm</b> Aluminium profile rail, cable length 2 x 2000 mm	DADO 1050	21-2210001-01
	<b>Panic bar DADO 2100 mm</b> Profile rail: Aluminium, cable length 2 x 2000 mm	DADO 2100	21-2210000-01
	<b>W24-2 compact photoelectric sensor</b>	WL24-2R240	21-2210110-01
	<b>Reflector for photoelectric sensor</b>	PL80A	21-2210111-01
	<b>Mounting bracket photoelectric sensor</b> For compact retro-reflective photoelectric sensor W24-2	BEF-WG-W24	21-2210112-01

## 2.12 Central system components



Connection scheme central system components

## L4-SWI9-GBIT system switch



No.: 21-1000402-01

Decentralised communication node of a Visocall IP call system for data exchange and power supply of the connected devices. Interface to the Management Center, as well as additional system switches and their connected peripherals.

Four screws are required for surface mounting. Generally installed in false ceilings or rooms which may only be accessed by staff.

Starting with application kit 6.1, annular system switch cascades can be provided, achieving a hardware redundancy of the system.



### NOTE

Supported starting from Visocall IP software version 7.0

- Connection of up to eight IP peripheral components (seven for system switch cascades)
- Two IO data bus loops for the connection of max. 126 components each. Consumption of the connected IO-bus and Basic components is limited to 500 mA per IO-bus
- Control tasks in rooms without communications terminal (max. 20 virtual rooms per system switch)
- Connection to backbone switches in a star, line or ring topology (max. six system switches per line or ring cascade)
- With the connected peripherals, this the smallest autonomous unit of a Visocall IP call system
  - In case of a network failure, the function of the call system will remain active within the autarchic units
  - In case of a network failure, the system switch cascades represented the groups in which the system switches communicate among each other
- Optimised for call systems with TV streaming via gigabit uplink and IGMP snooping

System compatibility	Visocall IP
Operating voltage range	21 to 30 V DC
Heat dissipation	max. 20 W or 64.8 kJ/h
Interfaces	
Downlink port 8	1 × RJ-45 socket for KMTs, ICT, SM-S, LS or for cascading a SWI9
Downlink port 1 to 7	7 × RJ-45 socket for KMTs, ICT, IP interfaces, DM1-IP, or for cascading a SWI9
Uplink	1 × RJ-45 socket for next higher SWI9
24 V DC input	1 × 6-pin Phoenix plug with 2.5 mm <sup>2</sup> screw terminals
IO-bus	4 × RJ-45 socket for 2 IO-bus loops
24 V DC output	1 × 4-pin Phoenix connector with 0.75 mm <sup>2</sup> screw terminals for LM-B, SMU-B, DMU-IO, SMF-B and L4-VTXT-IP
Mounting	Surface mounting
Ambient temperature	0 °C to +40 °C
Relative air humidity	up to 95 % without condensation
Case material	Zinc magnesium
Dimensions	227 × 160 × 35 mm (H×W×D)
Weight	759 g

## G-SWI9 Case



**No.: 21-1000407-01**

Galvanised sheet steel case for mounting the system switch. The lid is attached to the case with a quick acting closure and contains ventilation slits. The system switch is mounted in the case using four M4 × 10 plastic screws, as well as lock washers and washers on the M4 press-in nuts provided for this purpose. Two cable clamp rails are used for strain relief of the inserted cables.

Case material	Sheet steel, galvanised
Degree of protection	IP20
Dimensions	294 × 294 × 68.5 mm (H×W×D)
Weight	2.33 kg

## C-SWITCH core switch



**No.: 21-1000202-01**

Switch for set-up of an L3 network for call systems. The network of switches serves to connect the Management Center to the individual system switches.

The core switch is used as top level switch and in some cases up to ward level. A corresponding installation kit is required for installation in a network cabinet (one height unit).

- 24 1 gigabit ports with PoE Plus (370 W)
- Four SFP ports
- Including basic configuration for Visocall IP call systems
- Layer-3-switch

System compatibility	Visocall IP
Operating voltage range	100 to 127 V AC or 200 to 240 V AC
Performance	33 W
PoE output	370 W
Interfaces/ports	24 × RJ-45 sockets 10/100/1000Base-T 4 × SFP
Mounting	19" network cabinet (one height unit)
Dimensions	44 × 442 × 201 mm (H×W×D)
Weight	2.6 kg

## ST-SWITCH ward switch



**No.: 21-1000201-01**

Switch for set-up of an L2 network for call systems. The network of switches serves to connect the Management Center to the individual system switches.

The ward switch is used as an economical alternative for smaller call systems which are limited to the basic scope. A corresponding installation kit is required for installation in a network cabinet (one height unit).

- 24 1 gigabit ports with PoE Plus (370 W)
- Four SFP ports
- Including basic configuration for Visocall IP call systems
- Layer-2-switch

System compatibility	Visocall IP
Operating voltage range	100 to 127 V AC or 200 to 240 V AC
Performance	33 W
PoE output	370 W
Interfaces/ports	24 × RJ-45 sockets 10/100/1000Base-T 4 × SFP
Mounting	19" network cabinet (one height unit)
Dimensions	44 × 442 × 201 mm (H×W×D)
Weight	2.6 kg



**No.: 21-1000100-01**

## LDP logical delivery point

For components optimised for rack installation for structuring a call system in smaller sub-segments. Connected between a Management Center and the remaining network structure, a Logical Delivery Point increases the reliability of the call system and facilitates its maintenance. If the functional scope of a Management Center is not required for a call system, a Logical Delivery Point can be used instead.

Installation in a network cabinet (one height unit) is possible without accessories.

Installation in a network cabinet (one height unit) is possible without accessories.

Starting from Visocall IP software version 6.0, a Logical Delivery Point can be provided with hardware redundancy. For this, the Softwarelizenz MMC Redundanz system extension and a second Logical Delivery Point are required.



### NOTE

The supplied Visocall IP software corresponds to the latest released version at the time of delivery. Licences for control panels and other system extensions as well as updates of Visocall IP software must be ordered separately.

- In call systems with more than 2000 IP components the use of Logical Delivery Points alongside the Management Center is mandatory
- Up to 1000 IP components can be connected behind every Logical Delivery Point
- The use of Logical Delivery Points increases the reliability of the call system and facilitates its maintenance
- A Logical Delivery Point can be used instead of a Management Center if only the following Management Center functions are required:
  - Central import of updates
  - Automatic configuration of components when plugged in (e.g. exchange of a damaged patient terminal by the staff)

System compatibility	Visocall IP
Operating voltage range:	207 to 264 V AC
Current consumption	max. 50 W
Current consumption	max. 0.22 A (75 A inrush current)
Interfaces	
System connection	1 × RJ-45 socket for the connection of the next higher logical unit, e.g. a Management Center (1000Base-TX interface)
IP backbone	4 × RJ-45 socket for the connection of logically subordinate switches, e.g. backbone switches (100Base-TX interface)
Service interface	1 × RJ-45 socket for configuration
Mounting	19" network cabinet (one height unit)
Ambient temperature	+5 °C to +40 °C
Dimensions	
Case	43.7 × 448.6 × 224 mm (H×W×D)
Faceplate	44 × 483 mm (H×W)
Weight	3.1 kg

## L4-MC-IP Management Center



**No.: 21-1000002-01**

System controller optimised for rack installation, including operating system and the software required for the operation of a Visocall IP call system. The Management Center acts as the centralised node for all kinds of external systems and takes over key functions for the entire call system. It is connected to the system switches via the network of backbone switches.

A Management Center is required for the following application scenarios:

- Connection of external systems (e.g. alarm server, fire alarm system, Real Time Localisation System (RTLS), VDECT, telephone server)
- Operation of multimedia services via the server structure of the call system
- Use of dongle protected software licences
- Central import of updates
- Automatic configuration of components when plugged in (e.g. exchange of a damaged patient terminal by the staff)
- Logging of events (event database)
- Operation of a ward and central control panel
- Use of the following system extensions
  - Audio Manager
  - MMC redundancy
  - Patient Management
  - System Monitor
  - Telephone book function

System compatibility	Visocall IP
Operating voltage range	207 to 253 V AC
Current consumption	max. 50 W
Current consumption	max. 0.22 A (75 A inrush current)
Interfaces	
System connection	4 × RJ-45 socket for connection to the hospital LAN or the next higher logical unit (1000Base-TX interface)
IP backbone	4 × RJ-45 socket for connection of logically subordinate switches or LDP (100Base-TX interface)
Service interface	1 × RJ-45 socket for configuration
Mounting	19" network cabinet (one height unit)
Degree of protection	IP20, VDE 0834 Environmental class I
Ambient temperature	+5 °C to +40 °C
Relative air humidity	5 to 85% without condensation
Dimensions	
Case	43.7 × 448.6 × 224 mm (H×W×D)
Faceplate	44 × 483 mm (H×W)
Weight	3.1 kg

## Central system components and accessories

	Designation	Type	Article no.
	<b>SWI9-GBIT system switch</b>	L4-SWI9-GBIT	21-1000402-01
	<b>Case for SWI9</b> Galvanised sheet steel case for mounting	G-SWI9	21-1000407-01
	<b>19" installation rack for SWI9</b> incl. 16 x guide holders. For the installation in a 19" network cabinet (6 height unit). With room for up to 8 system switches	SWI9-RACK	FC010009
	<b>VCIP core switch</b> HPE Aruba Switch 6000 24G 4SFP incl. basic config.	C-SWITCH	21-1000202-01
	<b>VCIP ward switch</b> HPE Aruba Switch 6000 24G 4SFP incl. basic config.	ST-SWITCH	21-1000201-01
	<b>HPE Aruba Transceiver X121</b> 1000Base LX module single mode	1G SFP LC LX	21-1000350-01
	<b>HPE Aruba Transceiver X121 1G</b> 100Base-LX module multi mode	1G SFP LC SX	DF010091-ALWL
	<b>Logical Delivery Point</b>	LDP	21-1000100-01
	<b>Management Center</b>	L4-MC-IP	21-1000002-01
	<b>Guide holder installation rack, 1 pc. (replacement)</b>	FH-MR	DF010009

## 2.13 Installation accessories

### System cables and connectors

	Designation	Type	Article no.
	<b>Data cable Visocall IP</b> for cabling IP components, F/UTP with drain wire, Cat5e, 4 × 2 × 0.5, single-wire conductor construction, halogen-free, sold by the metre	CAT5	MM001124
	<b>Data cable Visocall IP-IO</b> for cabling IO-bus components, U/UTP with drain wire, Cat5e, 4 × 2 × 0.5, solid conductor construction, pack of 304.8 m	CAT5-IO	21-2401011-01
	<b>Data cable Visocall IP-IO HF</b> for cabling IO-bus components, U/UTP, Cat5, 4 × 2 × 0.5, single-wire conductor construction, halogen-free, by the metre	CAT5-IO-HF	MM001135
	<b>RJ-45 connector Cat5e</b> for data cable CAT5, CAT5-IO and CAT5-IO-HF	RJ45-IP	MM010008
	<b>Crimping pliers for RJ-45</b>	CRIMP-IP	MM010001
	<b>Visocall IP basic flat cable</b> for wiring basic components, flat cable, 6 × AWG28/7, stranded conductor, metered	AWG28/7	MM001126
	<b>Visocall IP basic flat cable HF</b> for wiring Basic components, flat cable, 6 × AWG28/7, stranded conductor, halogen-free, by the metre	AWG28/7-H	MM001128
	<b>RJ-12 connector</b> for flat cables AWG28/7 and AWG28/7-H	RJ12-IP-B	MM011008
	<b>Crimping pliers for RJ-12</b>	CRIMP-IP-B	MM011001

## Fitting materials

	Designation	Type	Article no.
	<b>"Call system" sticker</b> Foil sticker 100 × 23 mm, ws/bl, for ZWD/ZWB	S RA	21-2400100-01
	<b>Surface mounted frame</b> for communication and room terminals	AP-KMT	FC010190
	<b>Box frame</b> for communication and room terminals	DR-KMT	FC010191
	<b>AP-1 surface-mounted case</b>	APA-1	21-1002021-01
	<b>AP-2 surface-mounted case</b>	APA-2	21-1002022-01
	<b>Flush-mounted switch box</b>	U1	FC88010
	<b>Flush-mounted switch box</b> for brick walls, 60x66 mm (DxH)	U1 66	21-2400003-01
	<b>Cavity wall switch box, round</b>	H1	21-2400000-01
	<b>Cavity wall switch box</b> 68x62 mm (DxH)	H1 62	21-2400002-01
	<b>Double flush-mounted switch box</b>	U2	FC88012
	<b>Double cavity wall switch box</b>	H2	FC88013
	<b>Flush-mounted switch box</b>	U-ICT-IP	FC88019
	<b>Cavity wall switch box</b>	H-ICT-IP	FC88018

## Spare parts

	Designation	Type	Article no.
	<b>Receiver for Staff Terminal (replacement)</b> including connection cables	ST-TOUCH-HK	21-1002050-01
	<b>Base for staff terminal (replacement)</b>	ST-TOUCH-STF	21-1002051-01
	<b>Connection cable for Staff Terminal</b> Cable lengths 2.8 m	ST-TOUCH-AK	FC81818
	<b>PAT spiral connection cable (replacement)</b> with 33 cm connection cable and RJ-45 connector	AK-PAT-BL-SPIRALE	21-1011250-01
	<b>Connection cables PAT blue (replacement)</b> Cable lengths 35 cm	AK-PAT-BL-35	EI931506-C035
	<b>Connection cables PAT blue (replacement)</b> Cable lengths 50 cm	AK-PAT-BL-50	EI931506-C050
	<b>Connection cables PAT blue (replacement)</b> Cable lengths 500 cm	AK-PAT-BL-500	EI931506-C500
	<b>Connection cables PAT blue (replacement)</b> Cable lengths 2.8 m	AK-PAT-BL-280	EI931506-C
	<b>Connection cables BT-B red (replacement)</b> Cable lengths 35 cm	AK-BT-B	EI931573-A035
	<b>Connection cables BT-B red (replacement)</b> Cable lengths 50 cm	AK-BT-B	EI931573-A050
	<b>Connection cables BT-B red (replacement)</b> Cable lengths 2.8 m	AK-BT-B	EI931573-A
	<b>Connection cables BT-B red (replacement)</b> Cable lengths 3.5 m	AK5-BT-B	EI931573-A350
	<b>Connection cables BT-B red (replacement)</b> Cable lengths 5 m	AK5-BT-B	EI931573-A500
	<b>Pull cord call switch cord red incl. snap hook and grip, 10 pcs. (replacement)</b> Pull cord length 2.3 m	ZT-S2-E	21-1002300-01
	<b>Pull cord call switch cord red incl. snap hook and grip, 10 pcs. (replacement)</b> Pull cord length 4 m	ZT-S4-E	21-1002300-02
	<b>Pull cord call switch cord red incl. snap hook, 10 pcs. (replacement)</b> Pull cord length 2.3 m	ZT-S2	21-1002301-01
	<b>Replacement inlay</b> for radio combination transmitter, 1 pc.	F-VMS-INLAY	ZZH0799507
	<b>Replacement seal</b> for radio combination transmitter, 1 pc.	F-VMS-ED	ZZH0799508

	<b>Designation</b>	<b>Type</b>	<b>Article no.</b>
	<b>Replacement cord</b> for radio combination transmitter, approx. 96 cm, protective automatic opening function under stress	F-VMS-KOR	FC007996
	<b>Stretch wristband (replacement)</b> for radio combination transmitter, 1 pc. length 24 cm, with clip fastener	F-VMS-BAND-24	FC007957-B
	<b>Stretch wristband (replacement)</b> for radio combination transmitter, 1 pc. length 27 cm, with clip fastener	F-VMS-BAND-27	FC007957-B_27
	<b>Replacement clip D (spare)</b> for radio combination transmitter, 50 pc.	F-VMS-BOLT	ZZH0799504
	<b>Repair kit (replacement)</b> for radio combination transmitter, 10 pcs. à 10 sets	F-VMS-ERS	ZZH0799505
	<b>Repair complete kit (replacement)</b> for radio combination transmitter, 13 pcs. à 5 sets	F-VMS-RKS	ZZH0799506
	<b>Holder (replacement)</b> for radio pull cord call switch, 5 pc.	F-ZS-ERS	FC017985
	<b>Replacement ball and hose (replacement)</b> for radio pneumatic ball-type button F-PS-869	F-PS-EK	FC017989
	<b>Spare parts for radio cushion transmitter</b> consists of 1 × cushion case, 2 × velcro straps, 4 × adhesive dots	F-MP-ES	ZZL10740
	<b>Radio transmitter insert (replacement)</b> for installation in a radio sensor mat, 869 MHz, incl. battery (CR2032)	RTM-L869	21-2200550-01
	<b>Guide holder installation rack, 1 pc. (replacement)</b>	FH-MR	DF010009

## Accessories

	Designation	Type	Article no.
	<b>Cradle for patient handset</b>	K-PAT	FC010240
	<b>Cradle without magnet</b> only for BT-B	K-PAT-OM	21-1002210-01
	<b>Aluminium base for cradle K-PAT</b>	K-PAT-AS	21-1002200-01
	<b>Holding clip for patient handset</b> For attaching a patient terminal or a BT-IP pear pushbutton to the side rail of a bed	HB-PAT	21-1002005-01
	<b>HPE Aruba Transceiver X121</b> 1000Base LX module single mode	1G SFP LC LX	21-1000350-01
	<b>HPE Aruba Transceiver X121 1G</b> 100Base-LX module multi mode	1G SFP LC SX	DF010091-ALWL
	<b>External transmission adapter</b> in order to equip a wired sensor mat with radio, 869 MHz, battery: CR2032	F-SAD-869	FC017998
	<b>Null modem cable 1.8 m</b> with two D-SUB DE9 connectors for the connection of two control panels via RS-232	DB9-2M	21-9031000-01
	<b>Null modem cable 3 m</b> with two D-SUB DE9 connectors for the connection of two control panels via RS-232	DB9-3M	21-9031001-01
	<b>Holding clip for PAT</b> For attaching a device cable to a cable	HC-PAT	21-1002006-01
	<b>Holding clip</b> For attaching a device cable to a bed sheet	HC-VC	FC12804
	<b>Mounting clip (Ø 27 mm)</b> For attaching a device cable to a rising aid	HL27-VC	FC12803--A
	<b>Mounting clip (Ø 38 mm)</b> For attaching a device cable to a rising aid	HL38-VC	FC12803--B
	<b>Holding clip for connection cable</b> For attaching several device cables to the bed frame	HB-VC	FC12805
	<b>Diagnostic connections</b>	DSTK-W-VCIP	FC010350

	<b>Designation</b>	<b>Type</b>	<b>Article no.</b>
	<b>Mifare Reader USB</b> for reading Mifare cards	MFR-3700	FC017330
	<b>Headphones with headband</b> Cable lengths 2 m	KH	FC005205
	<b>Blind cover, connection module, 10 pcs.</b> For multimedia and diagnostic sockets, not suited for Intellifix sockets!	BLA-SM	FC010295
	<b>Mifare card</b>	MFC4C-CD	21-1002500-01
	<b>Network isolator EMOSAFE</b>	EMOSAFE EN-70E	21-1000500-01
	<b>Cable for TVI-IP PHILIPS</b> Length 1.5 m, SCART connector, connection strip	K-TVI-PHILIPS	21-1002031-01
	<b>Cable for TVI-IP PHILIPS</b> RJ-45, DIN, jack straight, 1.5 m	K-TVI-PHILIPS-2	21-1002031-02
	<b>Cable for TVI-IP PHILIPS</b> RJ-45, DIN, jack straight, 3 m	K-TVI-PHILIPS-3	21-1002031-03
	<b>Cable for TVI-IP PHILIPS</b> RJ-45, DIN, jack straight, 4 m	K-TVI-PHILIPS-4	21-1002031-04
	<b>Cable for TVI-IP PHILIPS</b> RJ-45, DIN, jack bent, 1.5 m	K-TVI-PHILIPS-5	21-1002031-05
	<b>V2 wall-mounted bracket for VR6 and VR7</b> For mounting a radio receiver	VR6-WALL	FC017978

## 2.14 Software licences

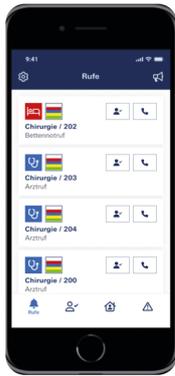
The software licences are required for the activation of programs or functions for operation, commissioning, configuration, service and maintenance of the call system. These functions are activated via various licences using a dongle.



**No.: 21-1009004-01**

### Visocall IP Software

Software package with all necessary programs for commissioning, programming, service and maintenance of the call system.



**No.: 21-1009130-01**

### VC MOB BP Visocall Mobile basic package

The Visocall Mobile software, consisting of the Visocall Mobile App and the Visocall Mobile Admin web application, is a software solution that allows care staff to display and manage information from the Visocall IP communication system on their mobile devices. Visocall Mobile allows for reception, indication and confirmation of different call types, reminder modes and staff presences of a Visocall IP communication system. Visocall Mobile App is available for both iOS and Android devices.

Push notifications ensure user-friendly notification via the Internet. Compliance with data protection guidelines is taken into account, it is not possible to transmit personal data via push notifications.



**No.: 21-1009111-01**

### Software licence MMC redundancy

Full hardware redundancy of the Management Center and Logical Delivery Point with Hot stand-by. The redundant design of the two system components increases the reliability of the central services and connections of a Visocall IP system, thereby eliminating a single point of failure.

This makes it almost impossible for services such as the control panel, event database, personalised presence via RFID, the connection to an alarm server or call forwarding via DECT telephony to be interrupted.



**No.: 21-1009100-01**

### Software licence ward control panel

The ward control panel ensures clear and simple visualisation and operation of the call system. The graphic interface provides clear ward plans, interactive room buttons, event lists and context-related control buttons. It thus provides a clear overview at any time of the events occurring in the respective ward. Irrespective of the call location and call priority, all pending calls can be responded to, a call set up or a reminder mode set from here. A call set-up to individual beds or rooms is just as possible as general or person-related announcements.



**No.: 21-1009101-01**

## Software licence ward control panel extension

Software licence for extension of an existing call system with an additional ward control panel.



**No.: 21-1009102-01**

## Software licence central control panel

The central control panel is used for simple visualisation and operation of the own or all interconnected wards. Irrespective of the call location and call priority, all pending calls can be responded to, a call set up or a reminder mode set from here. A call set-up to individual beds or rooms is just as possible as general or person-related announcements. The default software also includes the freely definable group care of up to 255 care groups per system. The control panel indicates faults and failures for the care service and appropriate measures can be taken (max. of 75 wards possible).



**No.: 21-1009103-01**

## Software licence central control panel extension

Software licence for extension of an existing call system with an additional central control panel.



**No.: 21-1009106-01**

## Software licence System Monitor

The System Monitor is used for building service departments to evaluate system changes and fault memories or to display system faults. It has password-protected access and can manage several call systems.



**No.: 21-1009104-01**

## Software licence patient management

The patient management is used to collect, display and print important patient data, which should be displayed immediately on the monitor when a phone call is received. The patient data is required for the entries in the event database, but can optionally also be used e.g. for recording and billing of fee data or for the detailed indication of alarms from the Real Time Localisation System (RTLS).



**No.: 21-1009105-01**

## Software licence event database

The event database supports the care documentation. All calls, staff presence and system events are recorded with time, date and corresponding information about the ward and the room name. The database can be searched for events that occurred within a specific time frame and/or at a specific location.

The data stored on the server side is indicated and evaluated via a web browser that accesses the server's XML data with a password-protection. Various filters make it easier to search and present the information searched for.



**No.: 21-1009108-01**

## Software licence Audio Manager

The Audio Manager enables targeted announcements, voice announcements or calls to patients and staff. By assigning inputs, audio content can be sent to predefined wards and general announcements can be controlled by external systems.



**No.: 21-1009107-01**

## Software licence telephone book function

For creating and managing phone books in the call system, which can be assigned to the respective care wards.



**No.: 21-1009109-01**

## Software licence Secocare data

The software licence is used for documentation of staff presence, as well as for the documentation of care measures at the patient's bed. A Mifare chip card, on which all necessary information is stored and which is inserted directly into the patient handset, enables care data documentation.



**No.: 21-1009110-01**

## Software licence Secocare data extension

Software licence for the extension of care documentation in an already existing call system with full range of functions for the own ward, or also across wards.



**No.: 21-1009118-01**

## Software licence interface telecoms system

Interface in Voice Over IP technology according to the H.323 or SIP standard (G.711 a-law, G.711  $\mu$ -law, G.729 A/B) for telephone communication between the patient terminals and the public telephone network as well as to other in-house extensions.



**No.: 21-1009115-01**

## ESPA software licence – alarm server

Interface for transmitting all events of the call system to an external alarm server.



**No.: 21-1009117-01**

## ESPA software licence – fire alarm system

For non-reactive forwarding of fire alarms to the the call system. The messages from the fire alarm control panel are indicated to the staff on all configured system displays, including the exact location of the source of the fire. Optionally, there is also a clear acoustic indication in the corresponding terminals. Which alarm should be forwarded to which ward and which staff category must be informed about the event is allocated via system configuration.



**No.: 21-1009113-01**

## Software licence mobile devices

SIP trunk as bidirectional IP call and data interface for VOIP TC system with the following functions:

- Detailed transmission of system events of pre-defined mobile telephone end devices, stating the call type and call location
- Immediate establishment of the conversation to the location making the call by simply lifting the mobile end device for answerable calls
- Setting reminder modes for different staff categories by dialling a code during a call
- ransmission of external collective and staff announcements from mobile telephone device to pre-configured wards
- Direct dialling of communication terminals, without a call having been triggered from this location beforehand

It must be possible to simultaneously address an unlimited number of telephone end devices per ward, taking into account the network load.



**No.: 21-1009116-01**

## ESPA software licence – Real Time Localisation System (RTLIS)

This unidirectional interface transmits all DESO alarms of the external Real Time Localisation System to the call system in the form of an ESPA 4.4.4 or ESPA X data log. Based on the configuration, this data is forwarded specifically to the configured points in the building that were defined in advance with the user. These alarms must be forwarded to mobile devices and the alarm server via the interfaces.



**No.: 21-1009121-01**

## Software licence Internet server

Interface for data transfer between the multimedia terminals or patient notebooks, the system's own application server and the internet proxy server provided by the customer or an internet gateway to the Internet Service Provider. For safety reasons, the bandwidth for this service is to be limited using QoS configuration of all switches.



**No.: 21-1009123-01**

## Software licence interface KNX/EIB

KNX/EIB integration to control lighting and blinds or shades of the building automation system for greater comfort and greater flexibility.



**No.: 21-1009112-01**

## HL7(HIS) software licence interface

The Health Layer 7 Interface (HL7) is a data interface between the call system and the Hospital Information System (HIS). Via this interface, the call system can assign beds to patients and their names in the HIS.



**No.: 21-1009140-01**

## Software licence Local import

Software licence for importing a configuration using a virtual machine. The Management Center is not required for this.



**No.: 21-1009126-01**

## Internet radio software licence

Software licence for operating the Internet radio. Individual radio channels can be made available from the Internet via URL in the Visocall IP system. A maximum of 32 radio channels can be activated on the Visocall IP dongle. This licence allows up to 5 web radio stations. It is also possible to import web radio stations individually.

## Software licences

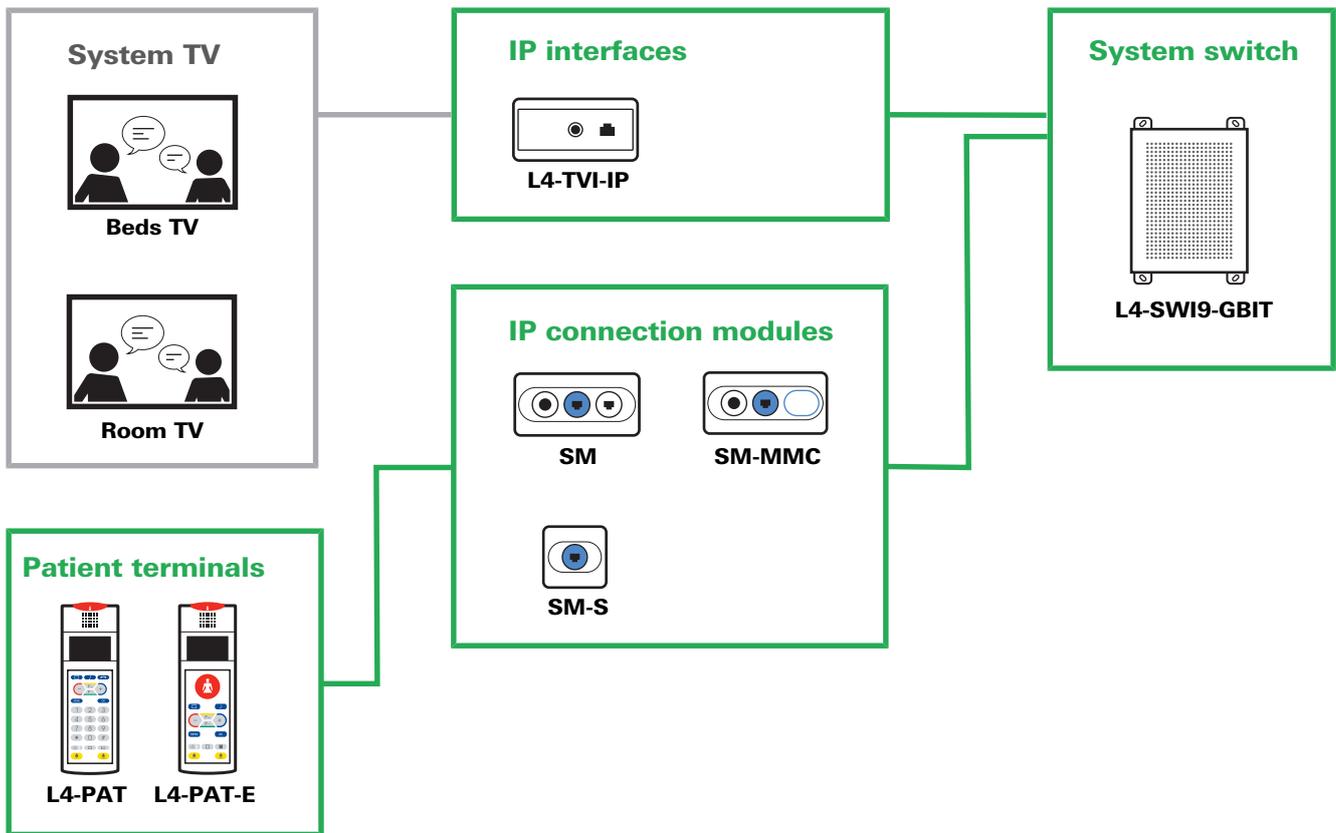
	Designation	Type	Article no.
	<b>Visocall IP Software</b>	SWP-IP/AK-10.0	21-1009004-01
	<b>Software licence Management Center Redundancy</b>	SWP-IP/MMC-R	21-1009111-01
	<b>Software licence ward control panel</b> Licence for the operation of a control panel	SWP-IP/SLS	21-1009100-01
	<b>Software licence ward control panel extension</b> for each additional ward control panel	SWP-IP/SLS-EXT	21-1009101-01
	<b>Software licence central control panel</b>	SWP-IP/ZLS	21-1009102-01
	<b>Software licence central control panel extension</b> for each additional central control panel	SWP-IP/ZLS-EXT	21-1009103-01
	<b>Software licence system monitor</b>	SWP-IP/MON	21-1009106-01
	<b>Software licence patient management</b>	SWP-IP/PV	21-1009104-01
	<b>Software licence event database</b>	SWP-IP/EDB	21-1009105-01
	<b>Software licence Audio Manager</b>	SWP-IP/AM	21-1009108-01
	<b>Software licence telephone book function</b> for Staff Terminal	SWP-IP/PBF	21-1009107-01
	<b>Software licence Secocare data</b>	SWP-IP/CD	21-1009109-01
	<b>Software licence Secocare data extension</b>	SWP-IP/CD-EXT	21-1009110-01
	<b>Software licence telecom system interface</b>	SWP-IP/TK-INT	21-1009118-01
	<b>ESPA software licence – alarm server</b> ESPA 4.4.4 or ESPA-X	SWP-IP/AS	21-1009115-01
	<b>ESPA software licence – fire alarm system</b> ISP/ESPA 4.4.4/ESPA-X	SWP-IP/BMZ	21-1009117-01
	<b>Software licence mobile devices</b>	SWP-IP/MP	21-1009113-01

	<b>Designation</b>	<b>Type</b>	<b>Article no.</b>
	<b>ESPA software licence – Real Time Localisation System (RTLS)</b> ESPA 4.4.4/ESPA-X	SWP-IP/DESO	21-1009116-01
	<b>Software licence Internet server</b>	SWP-IP/WEB	21-1009121-01
	<b>Softwarelizenz KNX/EIB interface</b>	SWP-IP/KNX-INT	21-1009123-01
	<b>Software licence HL7 interface (HIS)</b>	SWP-IP/HL7	21-1009112-01
	<b>Software licence Local import</b>	SWP-IP/LI	21-1009140-01
	<b>Internet radio software licence</b> with up to 5 web radio stations	SWP-IP/WR	21-1009126-01
	<b>1S Internet radio software licence</b> for 1 web radio station	SWP-IP/WR1S	21-1009127-01

### 3 TV sets

Supported Philips TV sets can be connected to Visocall IP call systems as a system TV. Configured as a bed TV, TV sets can be controlled from a patient terminal (PAT or PAT E). Configured as a room TV, TV sets can be controlled via several patient terminals (PAT or PAT E). Sound is then outputted at the allocated patient terminals. The power supply and TV broadcast reception corresponds to that of standard TV sets.

As outlined, the system connection is implemented via a L4-TVI-IP TV interface.



Connection scheme TV sets

## 3.1 Philips TV sets

The following Philips TV sets can be integrated into Visocall IP call systems. The 19" set can be configured as a bed TV, all other models can be configured as room TV.

For control from patient terminals, each TV set is connected to the call system via an L4-TVI-IP TV interface. The power supply and TV broadcast reception corresponds to that of standard TV sets.

The 19" set is suited for wall- and ceiling-arm mounting, the room TVs are suited for wall-mounting using a compatible VESA mounting bracket.

### 3.1.1 Product overview

Features	19HFL5214W/ 12	32HFL5114/12	43HFL5214U/ 12	50HFL5214U/ 12	55HFL5214U/ 12
TV type	Beds TV	Room TV	Room TV	Room TV	Room TV
Diagonal screen size	19"	32"	43"	50"	55"
Screen resolution in pixel	1366 × 768	1920 × 1080	3840 × 2160	3840 × 2160	3840 × 2160
Digital television	DVB-T/T2/C HEVC FHD (up to 1080p60)	DVB-T/T2/C HEVC FHD (up to 1080p60)	DVB-T/T2/C HEVC UHD (up to 2160p60)	DVB-T/T2/C HEVC UHD (up to 2160p60)	DVB-T/T2/C HEVC UHD (up to 2160p60)
Analogue television	PAL	PAL	PAL	PAL	PAL
Operating voltage	100 to 240 V AC	220 to 240 V AC			
Current consumption with EU energy label	14 W	29 W	51 W	65 W	75 W
VESA wall-mounting in mm	75 × 75	100 × 100	100 × 200	100 × 200	100 × 200
VESA screw size	M4	M6	M6	M6	M6
Weight in kg	3.45	4.6	7.6	11.3	13.1



**No.: 21-2010006-01**

## 32HFL5114/12 Philips Media Suite TV 32"

32 inch system TV for room-by-room television with operation via the patient handsets. The system is connected to the TV interface via the connecting cable provided for this purpose, and mounted with a TV wall-mounted bracket.

Operating voltage range	220 to 240 V AC, 50 to 60 Hz
Current consumption with EU energy label in stand-by mode	29 W max. 0.35 W
Energy efficiency class	F
System connection	via L4-TVI-IP TV interface to Visocall IP
Display	Full HD, LED
Screen size diagonal	32"/80 cm
Display resolution	1920 × 1080p
Brightness	250 cd/m <sup>2</sup>
Audio	
Loudspeaker	2
Sound output power	16 W (2 × 8)
Audio functions	DTS-HD, Dolby Atmos compatible, Dolby MS12D, AC-4, DTS Studio Sound
VESA compatible wall-mounted bracket	100 × 100 mm
VESA screw size	M6
Ambient temperature	0 °C to +40 °C
Dimensions	432 × 732 × 77 mm (H×W×D)
Weight without wall-mounted bracket	4.6 kg

## 43HFL5214U/12 Philips Media Suite TV 43"



No.: 21-2010013-01

43 inch system TV for room-by-room television with operation via the patient handsets. The system is connected to the TV interface via the connecting cable provided for this purpose, and mounted with a TV wall-mounted bracket.

Operating voltage range	220 to 240 V AC, 50 to 60 Hz
Current consumption with EU energy label	51 W
in stand-by mode	max. 0.3 W
Energy efficiency class	F
System connection	via L4-TVI-IP TV interface to Visocall IP
Display	4K Ultra HD LED
Screen size diagonal	43"/108 cm
Display resolution	3840 × 2160p
Brightness	350 cd/m <sup>2</sup>
Audio	
Loudspeaker	2
Sound output power	20 W (2 × 10)
Audio functions	DTS-HD, Dolby Atmos compatible, Dolby MS12D, AC-4, DTS Studio Sound
VESA compatible wall-mounted bracket	100 × 200 mm
VESA screw size	M6
Ambient temperature	0 °C to +40 °C
Dimensions	560 × 958 × 77/80 mm (H×W×D)
Weight without wall-mounted bracket	7.6 kg

## 50HFL5214U/12 Philips Media Suite TV 50"



No.: 21-2010014-01

50 inch system TV for room-by-room television with operation via the patient handsets. The system is connected to the TV interface via the connecting cable provided for this purpose, and mounted with a TV wall-mounted bracket.

Operating voltage range	220 to 240 V AC, 50 to 60 Hz
Current consumption with EU energy label in stand-by mode	65 W max. 0.3 W
Energy efficiency class	F
System connection	via L4-TVI-IP TV interface to Visocall IP
Display	4K Ultra HD LED
Screen size diagonal	50"/126 cm
Display resolution	3840 × 2160p
Brightness	350 cd/m <sup>2</sup>
Audio	
Loudspeaker	2
Sound output power	20 W (2 × 10)
Audio functions	DTS-HD, Dolby Atmos compatible, Dolby MS12D, AC-4, DTS Studio Sound
VESA compatible wall-mounted bracket	100 × 200 mm
VESA screw size	M6
Ambient temperature	0 °C to +40 °C
Dimensions	647 × 1112 × 78/85 mm (H×W×D)
Weight without wall-mounted bracket	11.3 kg

## 55HFL5214U/12 Philips Media Suite TV 55"



**No.: 21-2010015-01**

55 inch system TV for room-by-room television with operation via the patient handsets. The system is connected to the TV interface via the connecting cable provided for this purpose, and mounted with a TV wall-mounted bracket.

Operating voltage range	220 to 240 V AC, 50 to 60 Hz
Current consumption with EU energy label in stand-by mode	75 W max. 0.3 W
Energy efficiency class	F
System connection	via L4-TVI-IP TV interface to Visocall IP
Display	4K Ultra HD LED
Screen size diagonal	55"/139 cm
Display resolution	3840 × 2160p
Brightness	350 cd/m <sup>2</sup>
Audio	
Loudspeaker	2
Sound output power	20 W (2 × 10)
Audio functions	DTS-HD, Dolby Atmos compatible, Dolby MS12D, AC-4, DTS Studio Sound
VESA compatible wall-mounted bracket	100 × 200 mm
VESA screw size	M6
Ambient temperature	0 °C to +40 °C
Dimensions	712 × 1228 × 78/85 mm (H×W×D)
Weight without wall-mounted bracket	13.1 kg

## PHILIPS CMND Philips Command Server 19"



**No.: 21-2010016-01**

With the Philips Command Server system, Philips HFL series televisions can be controlled, configured and updated from one centralised location, making it easier for in-house technicians to manage the system.

- 19" rack mountable CMND server incl. Dektec card
- Intel Core i3-10105 3.7G 4C
- 8 GB DDR4 memory
- 500 GB M.2 SSD
- Windows 10 Pro 64 bit UK
- Video output: VGA, DVI-D
- CMND image
- Teamviewer software

## 19HFL5214W/12 Philips bed TV 19"



No.: 21-2010012-01

LED HD television for individual and discreet television directly at the patient's bedside. Convenient control and sound output is via the patient handset. The TV set is mounted with a wall-mounted arm, allowing the appropriate distance for the patient.

- Diagonal screen size 19"
- Digital television DVB-T/T2/C, HEVC FHD (up to 1080p60)
- Analogue television PAL
- Easy operation and cleaning
- Robust glass front

Operating voltage range	100 to 240 V AC, 50 to 60 Hz
Current consumption with EU energy label	14 W
in stand-by mode	max. 0.5 W
Energy efficiency class	E
System connection	via L4-TVI-IP TV interface to Visocall IP
Display	LED HD TV
Screen size diagonal	19"/47 cm
Display resolution	1366 × 768p
Brightness	200 cd/m <sup>2</sup>
Audio	
Loudspeaker	2
Sound output power	5 W (2 × 2.5)
Audio functions	DTS-HD, Dolby Atmos compatible, Dolby MS12D, AC-4, DTS Studio Sound
VESA compatible wall-mounted bracket	75 × 75 mm
VESA screw size	M4
Ambient temperature	0 °C to +40 °C
Dimensions	326 × 469 × 39/49 mm (H×W×D)
Weight with handle	3450 g

## L4-TVI-IP TV interface



**No.: 21-1013011-01**

Hardware interface for controlling a connected system TV and for picking up its sound or feeding it into the Visocall IP system. A 100Base-TX interface is used to connect external TV sets to the network.

Suitable for wall mounting. For surface mounting, the corresponding APA-2 surface-mounted case is required, for flush mounting, a double switch box installed in the wall must be provided for. Generally mounted in patient rooms and common rooms.

- Supports TV sets various manufacturers
- TV set can be configured as a room TV or bed TV
- Control of the TV via one or several patient terminals
- Audio output via the TV or the allocated patient terminals

System compatibility	Visocall IP
Operating voltage range	20 to 30 V DC
Current consumption	approx. 36 mA with 24 V
Interfaces	
System connection	1 × 100Base-TX with PoE for connection to a SWI9
Connection TV set	1 × 8-pin DIN socket 45326, galvanically isolated RS-232: RXD, TXD CMOS: RXD, TXD, level: 3.3 V CMOS Audio input: based on IEC 61938
Network connection for TV set	100Base-TX, galvanically isolated
Mounting	Surface or flush-mounted
Degree of protection	IP30, VDE 0834 Environmental class I
Ambient temperature	+5 °C to +40 °C
Relative air humidity	up to 95 % without condensation
Case material	plastic/ABS
Case colour	white, RAL 9016
Dimensions	83 × 160 × 32 mm (H×W×D)
Weight	120 g



No.: FC007113

## WALL 1120 TV mounting bracket

VESA bracket for mounting TV sets up to max. 15 kg on the wall. The TV can be rotated 30 degrees to the left and right, and 10 degrees up and down.

VESA compatible wall-mounted bracket	up to 200 × 200 mm
Suitable for screen sizes	48.3 cm (19") to 94.0 cm (32")
Tilt range	10° upwards and downwards
Slewing range	60°, 30° to the left and right
Wall distance	46 mm
Material	aluminium
Colour	black
Load capacity	max. 15 kg
Weight	1.3 kg

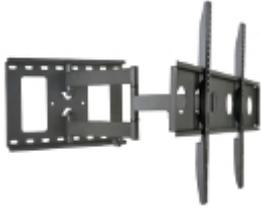


No.: 21-2015020-01

## TVM 3425 TV mounting bracket

VESA bracket for mounting TV sets up to max. 20 kg on the wall. The TV can be turned 60 degrees to the left and right and 20 degrees downwards.

VESA compatible wall-mounted bracket	400 × 400 mm
Suitable for screen sizes	81.3 cm (32") to 165.1 cm (65")
Tilt range	20° upwards and downwards
Slewing range	60° to the left and right
Wall distance	53 to 343 mm
Material	steel/plastic
Colour	black
Load capacity	max. 25 kg

**No.: 21-2015014-01**

### ICA-PLB-148L TV bracket

VESA bracket for mounting TV sets up to max. 50 kg on the wall. The TV can be turned 90 degrees to the left and right and 12 degrees downwards.

VESA compatible wall-mounted bracket	100 x 100 mm to 600 x 400 mm
Suitable for screen sizes	81.3 cm (32") to 165.1 cm (65")
Ergonomics	swivelling, tiltable
Material	steel/plastic
Colour	black
Load capacity	max. 50 kg

**No.: 21-2015018-01**

### TVM3245 Vogels TV bracket

Vogels bracket for mounting TV sets up to max. 15 kg on the wall. The mounting bracket can be rotated by up to 180 degrees and tilted by 20 degrees (10 degrees forwards and backwards).

Suitable for screen sizes	48.3 cm (19") to 108 cm (43")
Tilt range	10° upwards and downwards
Slewing range	180°
Wall distance	493 mm
Colour	black
Load capacity	max. 15 kg

## Philips TV sets and accessories

	Designation	Type	Article no.
	<b>Philips Media Suite TV 32"</b>	32HFL5114/12	21-2010006-01
	<b>Philips Media Suite TV 43"</b>	43HFL5214U/12	21-2010013-01
	<b>Philips Media Suite TV 50"</b>	50HFL5214U/12	21-2010014-01
	<b>Philips Media Suite TV 55"</b>	55HFL5214U/12	21-2010015-01
	<b>Philips Command Server CMND</b>	19" PHILIPS CMND	21-2010016-01
	<b>Philips bed TV 19"</b> LED HD TV with 47 cm diagonal screen size	19HFL5214W/12	21-2010012-01
	<b>Philips TV remote control</b> with hygienic, easy-to-clean surface	FB 22AV1604B	21-2012000-01
	<b>L4-TVI-IP TV interface</b>	L4-TVI-IP	21-1013011-01
	<b>TV mounting bracket WALL 1120</b> for screen sizes 19 to 32"	WALL-1120	FC007113
	<b>TV mounting bracket TVM 3425</b> for screen sizes 32 to 65"	TVM 3425	21-2015020-01
	<b>TV bracket ICA-PLB-148L</b> for screen sizes 32 to 65"	ICA-PLB-148L	21-2015014-01
	<b>Vogels TV mounten bracket TVM3245</b> small	TVM3245	21-2015018-01
	<b>Vogels TV wall-mounted bracket</b> Inclination steplessly adjustable +/-10°, up to 180° swivelling, incl. padlock, screen size: 10 to 28 inches, VESA: 100 x 100 mm, colour: black, weight load: max. 16 kg	PFW1040	21-2015002-01
	<b>Vogels TV wall-mounted bracket</b> Inclination steplessly adjustable +/-10°, up to 120° swivelling, incl. padlock, screen size: 10 to 28 inches, VESA: 100 x 100 mm, colour: black, weight load: max. 16 kg	PFW1030	21-2015003-01
	<b>Vogels VESA adapter</b> 50x50, 75x75, 100x100, tiltable, up to 30kg	PFI3015	21-2015006-01
	<b>Vogels ceiling adapter</b> for ceiling suspension profile PUC2430, for sloping/flat ceilings, max. 40 kg, 90° inclinable	PUC1045	21-2015004-01

	<b>Designation</b>	<b>Type</b>	<b>Article no.</b>
	<b>Vogels false ceilings profile</b> 300 cm, max. 40 kg, connect-it, Ø 70 mm, silver	PUC2430	21-2015005-01
	<b>Vogels ceiling adapter</b> for ceiling suspension profile PUC2530/2515/2508	PUC1065	21-2015007-01
	<b>Vogels false ceilings profile</b> 300 cm, max. 160 kg, connect-it, Ø 93 x 52 mm	PUC2530	21-2015009-01
	<b>Vogels false ceilings profile</b> 150 cm, max. 80 kg, connect-it, Ø 93 x 52 mm	PUC2515	21-2015011-01
	<b>Vogels false ceilings profile</b> 80 cm, max. 80 kg, connect-it, Ø 93 x 52 mm	PUC2508	21-2015012-01
	<b>Vogels ceiling mounting set</b>	CT241522	21-2015021-01
	<b>Vogels adapter bar silver</b> max. fixing area 450 mm	PFB3405	21-2015008-01
	<b>Vogels adapter bar black</b> max. fixing area 450 mm	PFB3405	21-2015008-02
	<b>Vogels display adapter strips</b> inclinable up to 20°, max. VESA 420 mm, max. 80 kg	PFS3304	21-2015010-01
	<b>Vogels adapter bar 290 mm</b> for monitors up to 80 kg	PFB3402	21-2015016-01
	<b>Vogels display adapter strips</b> Tiltable up to 20°.	PFS3302	21-2015017-01
	<b>Cover for bed TV 19"</b> Rear of unit for wall-mounted arm O2000	CIB 52274 21	21-2010105-01
	<b>Cover for bed TV 19"</b> Rear of unit for wall-mounted arm FX500	CIB 52260 20	21-2010104-01
	<b>Cover hinge</b> for wall-mounted arm FX500 (replacement)	FX500 CV	21-2010103-01
	<b>Cable for TVI-IP PHILIPS</b> RJ-45, DIN, jack straight, 1.5 m	K-TVI-PHILIPS-2	21-1002031-02
	<b>Cable for TVI-IP PHILIPS</b> RJ-45, DIN, jack straight, 3 m	K-TVI-PHILIPS-3	21-1002031-03
	<b>Cable for TVI-IP PHILIPS</b> RJ-45, DIN, jack straight, 4 m	K-TVI-PHILIPS-4	21-1002031-04

	<b>Designation</b>	<b>Type</b>	<b>Article no.</b>
	<b>Cable for TVI-IP PHILIPS</b> RJ-45, DIN, jack bent, 1.5 m	K-TVI-PHILIPS-5	21-1002031-05
	<b>Connection cable for bed TV 19"</b> for wall-mounted arm/3.5 m/white/streaming	A-KABEL 3,5M	21-2010204-01
	<b>Installation remote control</b> with additional function key for Android TV	22AV9574A/12	21-2012002-01
	<b>AP-2 surface-mounted case</b>	APA-2	21-1002022-01
	<b>Double flush-mounted switch box</b>	U2	FC88012
	<b>Double cavity wall switch box</b>	H2	FC88013

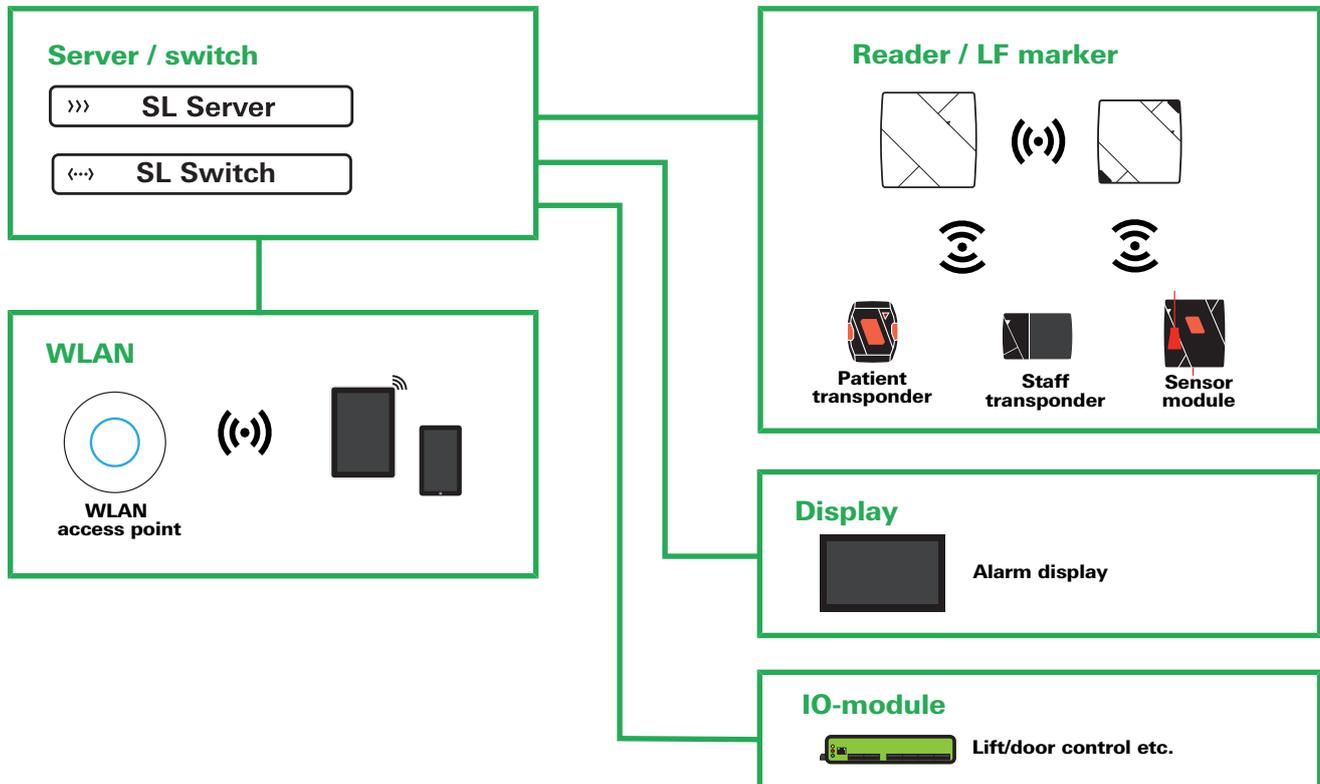
# 4 Securwatch Real Time Localisation System

## 4.1 Securwatch SmartLiberty networked systems

The Real Time Localisation System (RTLS) Securwatch SmartLiberty protects people almost invisibly and represents the new security standard in long-term care. As soon as an event is detected, such as a threat to staff, a help call from a patient or a patient leaving a secure zone, the system triggers an alarm including the position data. Even under widely varying ambient conditions, Securwatch's great flexibility and deceptive alarm security allows for optimal protection of patients and care staff indoors and outdoors. Thanks to its individual configurability, the solution offers more freedom of movement for patients while at the same time providing relief and support for care staff - in all possible applications. The system developed with the help of the care staff is user-friendly, safe, of high quality and focuses on the human being.

The following functions are covered by the SmartLiberty system:

- Patient call (help or service call)
- Assistance call
- Emergency staff call
- Wandering detection
- Localisation
- Special applications



Connection scheme SmartLiberty

## 4.1.1 Reader



No.: 21-9200000-01

### SLR\_RFREADER\_V1 long-range RF reader

With its bidirectional radio frequency antenna, the long range RF reader receives information from sensor modules, patient and staff transponders and transmits these to a server via a TCP/IP interface.

Suited for wall and ceiling mounting. Generally installed so that a comprehensive radio frequency coverage of the supervised area is provided for. The overlapping of the RF fields of individual readers is permissible.

For surface mounting, the SLK\_MOUNTKIT\_V1 mounting kit as well as flat-head screws with a diameter of max. 4 mm (head diameter max. 7 mm) are required.

- Maximum radius of radio frequency coverage
  - Inside up to 40 metres (depending on the building)
  - Outside up to 500 metres (visual range)
- Power supply via PoE Plus or external power supply unit
- A vandalism sensor reports the opening of the case
- Multi-colour LED for status indication
- Simple familiarisation and management in the system with RFID
- Device monitoring in 30 seconds intervals

System compatibility	Securwatch SmartLiberty
Operating voltage	24 V DC
Performance	3 W
Interfaces	
System connection	1 × RJ-45 socket for connection to the network (Ethernet 10/100, with simultaneous PoE Plus power supply in accordance with IEEE 802.3at)
Long-range technology	HF 868.3 MHz, bidirectional
RFID antenna	13.56 MHz, passive RFID (ISO 15693 ICODE SLI R/W)
Mounting	Surface mounting
Degree of protection	IP40 (can be upgraded to IP65 with conversion kit)
Ambient temperature	–20 °C to +60 °C
Relative air humidity	5 to 95% without condensation
Case material	Polycarbonate, halogen-free
Case colour	white
Dimensions	195 × 195 × 37 mm (H×W×D)
Weight	390 g

## SLM\_MARKER\_V1 marker PIR, LF, IR



No.: 21-920004-01

The LF marker enables the tracking of patient and staff transponders, and works with a combination of infrared and low frequency signals.

Suitable for wall mounting. Installed at specific locations, generally in the area of the door. The overlapping of the RF fields of individual markers should be avoided.

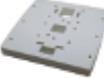
For surface mounting, the SLK\_MOUNTKIT\_V1 mounting kit as well as flat-head screws with a diameter of max. 4 mm (head diameter max. 7 mm) are required.

For power supply via the 230 V AC grid, the SLK\_MOUNTKIT230V\_V2 mounting kit must be used; for battery operation or power supply via a 24 V DC mains, the SLK\_MOUNTKIT\_V1 mounting kit must be used.

- Thanks to the integrated motion sensor, the LF radio field is inactive when not required
- The maximum tracking range is:
  - With integrated antenna up to 5 metres (adjustable)
  - With connected ground loop up to 100 metres
- Power supply can be flexibly selected
  - 230 V AC with mounting kit SLK\_MOUNTKIT230V\_V1
  - V 24 DC with external power supply unit and connector SLM\_PLUG24V\_V1
  - Battery SLM\_BATLITHIUM\_V1
- A vandalism sensor reports the opening of the case
- Multi-colour LED for status indication
- Simple familiarisation and management in the system with RFID
- Device monitoring in 30 seconds intervals

System compatibility	Securwatch SmartLiberty
Interfaces	
Long-range technology	HF 868.3 MHz, bidirectional
Localisation technology	LF 125 kHz and infrared (940 nm, 36 kHz)
RFID antenna	13.56 MHz, passive RFID (ISO 15693 ICODE SLI R/W)
Mounting	Surface mounting
Degree of protection	IP40 (can be upgraded to IP65 with conversion kit)
Ambient temperature	–20 °C to +60 °C
Relative air humidity	5 to 95% without condensation
Case material	Polycarbonate, halogen-free
Case colour	white
Dimensions	158 x 158 x 40 mm (HxWxD)
Weight	320 g

## Reader and accessories

	Designation	Type	Article no.
	<b>Long-Range RF Reader</b>	SLR_RFREADER_V1	21-9200000-01
	<b>Spacer for long-range RF reader</b>	SLK_SPACER-READER_V1	21-9200014-01
	<b>Case for RF reader (replacement)</b> Cover including bottom side	SLR_COVER_V1	21-9200002-01
	<b>868 MHz rod antenna for RF reader (replacement)</b>	SLR_RFANTENNA_V1	21-9200003-01
	<b>LF marker PIR, LF, IR</b>	SLM_MARKER_V1	21-9200004-01
	<b>Distancing for markers</b> for mounting markers on metal ceilings	DIS_MON_ADAPTER	21-9200016-01
	<b>Lithium battery for Marker</b>	SLM_BATLITHIUM_V1	21-9200006-01
	<b>LF-Marker cutoff module</b> for geolocation marker SLM_MARKER_V1	SLM_LFCUTOFF_V1	21-9200012-01
	<b>Mounting kit RF/Marker</b>	SLK_MOUNTKIT_V1	21-9200001-01
	<b>Mounting kit RF/marker 230 V AC</b>	SLK_MOUNTKIT230V_V2	21-9200005-01
	<b>Connector 24 V DC for RF/Marker</b>	SLM_PLUG24V_V1	21-9200010-01
	<b>Cover for marker (replacement)</b>	SLM_COVER_V1	21-9200007-01
	<b>IR corner for marker (replacement)</b>	SLM_IRCORNER_V1	21-9200008-01
	<b>PIR corner for marker (replacement)</b>	SLM_PIRCORNER_V1	21-9200009-01
	<b>Waterproof box IP65 for marker or RF reader</b>	SLK_WATER-PROOFKIT_V1	21-9200011-01

## 4.1.2 Transponder



No.: 21-9210000-01

### SLB\_RES\_BADGE\_V1 patient transponder RED

The patient transponder enables mobile individuals requiring assistance to send a help call or service call. Disorientation alarms can be released via the badge for individuals with the tendency to wander. The transponder can be attached to the wrist with the supplied wristband.

Accessories such as the safety pendant, belt clip and disposable wristband offer additional wearing options. The transponder is designed for use by individuals requiring care and is intended solely for this use.

- Button on the front for mobile help calls
- Two buttons on the side for mobile service calls
- Multi-colour LED for status indication
- Combined tracking technology via radio and infrared
- Simple familiarisation and management in the system with RFID
- Device monitoring in 30 seconds intervals

System compatibility	Securwatch SmartLiberty
Battery type	1 × CR2450, 3V lithium button cell battery
Interfaces	
Long-range technology	HF 868 MHz, bidirectional
Localisation technology	LF 125 kHz and infrared (940 nm, 36 kHz)
RFID antenna	13.56 MHz, passive RFID (ISO 15693 ICODE SLI R/W)
Degree of protection	IP67W (waterproof in shower and bath)
Ambient temperature	-20 °C to +60 °C
Case material	plastic, latex-free
Case colour	black
Dimensions without bracelet	50 × 40 × 16 mm (H×W×D)
Weight	44 g

## SLB\_STA\_BADGE\_V1 staff transponder with clip



**No.: 21-9210018-01**

The staff transponder with a clip is designed to look like a name tag. The transponder can be used to release help or aggression calls, cancel alarms and accompany disoriented inhabitants. The supplied clip can be used to attach the transponder to the outer clothing.

The transponder is designed for use by staff and is intended solely for this use.

With the SLB\_STACARDHOLDER\_V1 ISO card holder, the staff transponder can be converted for an ID card to be integrated.

- Button at the back for mobile help and aggression calls
- Button at the back for canceling calls
- Multi-colour LED for status indication
- Combined tracking technology via radio and infrared
- Simple familiarisation and management in the system with RFID
- Device monitoring in 30 seconds intervals

System compatibility	Securwatch SmartLiberty
Battery type	1 × CR2450, 3V lithium button cell battery
Interfaces	
Long-range technology	HF 868 MHz, bidirectional
Localisation technology	LF 125 kHz and infrared (940 nm, 36 kHz)
RFID antenna	13.56 MHz, passive RFID (ISO 15693 ICODE SLI R/W)
Alarm cancellation	125 kHz transmitter with 1 m range (active when the cancel button is pressed)
Degree of protection	IP67W (waterproof in shower and bath)
Ambient temperature	-20 °C to +60 °C
Case material	plastic, latex-free
Case colour	black
Dimensions without clip	59 × 88 × 13 mm (H×W×D)
Weight	56 g

## Transponder and accessories

	Designation	Type	Article no.
	<b>Patient transponder</b> RED with wristband	SLB_RES_BADGE_V1	21-9210000-01
	<b>Spare part care transponder with red button</b>	SLB_RES_CASE-RED_V4	21-9210001-01
	<b>Spare part care transponder with blue button</b>	SLB_RES_CASE-BLUE_V4	21-9210002-01
	<b>Spare part care transponder with pink button</b>	SLB_RES_CASE-PINK_V4	21-9210003-01
	<b>Spare part care transponder with yellow button</b>	SLB_RES_CASE-YEL_V2	21-9210004-01
	<b>Blind cover</b> two-part, for patient transponder	SLB_RES_BLIND-COVER_1	21-9210028-01
	<b>Wristband with buckle</b> for patient transponders	SLB_RES_WRISTB-ABU_V7	21-9210005-01
	<b>Wristband with holes</b> for patient transponders	SLB_RES_WRIST-BAHO_V6	21-9210006-01
	<b>Long wristband with holes</b> for patient transponders	SLB_RES_WRISTBA_L_V6	21-9210006-02
	<b>Disposable wristband, black</b> for patient transponders	SLB_RES_DISPOBAND_V1	21-9210010-01
	<b>Rubber loop (replacement)</b> for patient transponder wristband	SLB_RES_RUBBER-LOOP	21-9210013-01
	<b>RFID rubber loop MIFARE</b> for patient transponders	SLB_RES_MIFARELOOPV2	21-9210024-01
	<b>RFID rubber loop LEGIC</b> for patient transponders	SLB_RES_LEGICLOOP_V1	21-9210027-01
	<b>Mounting tool for rubber loop MIFARE/LEGIC</b>	SLB_RES_BUCKLETTOOLV1	21-9210029-01
	<b>Belt clip</b> for patient transponders	SLB_RES_BELTCLIP_V1	21-9210011-01
	<b>Pendant clips</b> for patient transponders (2 parts)	SLB_RESPENDANTCLIPV2	21-9210012-01
	<b>Safety pendant</b> for patient transponders, requires hanging clips	SLB_RES_PENDANT_V1	21-9210014-01
	<b>Safety fastener, robust</b> for patient transponders (reusable)	SLB_RES_LOCK_V2	21-9210030-01

	<b>Designation</b>	<b>Type</b>	<b>Article no.</b>
	<b>Safety screws</b> for safety lock SLB_RES_LOCK_V2	SLB_RES_LOCKSCRE W_V1	21-9210033-01
	<b>Key for safety fastener</b> for patient transponders	SLB_RES_LOCK- KEY_V2	21-9210031-01
	<b>Opening kit for patient transponder</b> two-part, for easier opening of the patient transponder	SLB_RES_OPEN- ING_KIT	21-9210032-01
	<b>Lower part (replacement)</b> for patient transponders	SLB_RES_BOTTOM_V2	21-9210007-01
	<b>Staff transponder</b> with clip	SLB_STA_BADGE_V1	21-9210018-01
	<b>Staff transponder dummy</b> with clip, without electronics	SLB_STA_BADGENO- ELEC	21-9210019-01
	<b>Cover (replacement)</b> for staff transponders	SLB_STA_COVER_V3	21-9210022-01
	<b>Bottom (replacement)</b> for staff transponders	SLB_STA_BOTTOM_V3	21-9210021-01
	<b>Staff transponder case</b> Top and bottom set	SLB_STA_KIT_CASE_V 2	21-9210034-01
	<b>Window (replacement)</b> for staff transponders	SLB_STA_WIN- DOW_V3	21-9210023-01
	<b>Clip (replacement)</b> for staff transponders	SLB_STA_CLIP_V1	21-9210020-01
	<b>ISO card holder</b> Conversion kit for the staff transponder	SLB_STACARD- HOLDER_V1	21-9210035-01
	<b>RFID inlay MIFARE</b> for staff transponders	SLB_STAINLAYMI- FAREV1	21-9210025-01
	<b>RFID inlay LEGIC</b> for staff transponders	SLB_STA_IN- LAYLEGICV1	21-9210026-01
	<b>Battery CR2450</b> for patient and staff transponders	CSM_BATCR2450_V1	21-9210015-01
	<b>Screw driver torx T6</b>	SLB_RES_SCREW- DRIVER	21-9210016-01
	<b>Screw set (replacement)</b> for patient and staff transponders	SLB_SCREWS_V4	21-9210017-01

	<b>Designation</b>	<b>Type</b>	<b>Article no.</b>
	<b>MetaFix safety wristband</b> 14 mm wide 37 cm long	METAFIX WRIST	21-2210013-01

## 4.1.3 System components

### C-SWITCH SECURWATCH securwatch core switch



**No.: 21-9220202-01**

Switch for set-up of an L3 network for Real Time Localisation Systems. The switch network is required for connecting the server with network-compatible system components.

A suitable installation kit is required for mounting in a network cabinet (1 height unit).

- 24 1 gigabit ports with PoE Plus (370 W)
- Four SFP ports
- Layer-3-switch

System compatibility	Securwatch SmartLiberty
Operating voltage range	100 to 127 V AC or 200 to 240 V AC
Performance	33 W
PoE output	370 W
Interfaces/ports	24 × RJ-45 sockets 10/100/1000Base-T 4 × SFP
Mounting	19" network cabinet (one height unit)
Dimensions	44 × 442 × 201 mm (H×W×D)
Weight	2.6 kg

## ST-SWITCH SECURWATCH Securwatch ward switch



**No.: 21-9220203-01**

Switch for set-up of an L2 network for Real Time Localisation Systems. The switch network is required for connecting the server with network-compatible system components.

A suitable installation kit is required for mounting in a network cabinet (1 height unit).

- 24 1 gigabit ports with PoE Plus (370 W)
- Four SFP ports
- Layer-2-switch

System compatibility	Securwatch SmartLiberty
Operating voltage range	100 to 127 V AC or 200 to 240 V AC
Performance	33 W
PoE output	370 W
Interfaces/ports	24 x RJ-45 sockets 10/100/1000Base-T 4 x SFP
Mounting	19" network cabinet (one height unit)
Dimensions	44 x 442 x 201 mm (HxWxD)
Weight	2.6 kg



**No.: 21-9240001-01**

## Securwatch Smart Liberty user licence Visocall IP

Annual prepaid model based on a maximum number of users for projects with an interface to the call system. Works for mobile calls, localisation management, assistance call and technical alarms. Also included are the use of the ESPA 4.4.4 or ESPA-X interfaces, the online licence check and all annual upgrades, bug fixes and hotfixes. By placing an order for this item, a licence agreement including the enclosed additional terms and conditions as well as the FEEL software conditions are considered bindingly concluded.



**No.: 21-9240002-01**

## Securwatch SmartLiberty user licence stand alone

Annual prepaid model for a maximum number of users to use Securwatch SmartLiberty (stand alone). The licence works for mobile staff call, localisation management, assistance call and technical alarms. ESPA 4.4.4, ESPA-X interfaces, online licence check, and all annual upgrades, bug fixes and hotfixes are included.



**No.: 21-9240003-01**

## motica care App

Annual prepaid model based on a maximum number of users for projects with an interface to the call system. Works for mobile calls, localisation management, assistance call and technical alarms. Also included are the use of the ESPA 4.4.4 or ESPA-X interfaces, the online licence check and all annual upgrades, bug fixes and hotfixes. By placing an order for this item, a licence agreement including the enclosed additional terms and conditions as well as the FEEL software conditions are considered bindingly concluded.

## SLS\_MODULE\_V1 sensor module



No.: 21-9220004-01

The sensor module can be flexibly used for a variety of functions due to the sensors and ports. Help calls can be released via the pull cord and the push button. Due to the included magnetic sensor, it can also be used as a door opening sensor. And external devices can be connected to the 3.5 mm mono jack plug. Suitable for wall mounting.

For surface mounting, additional flat-head screws with a diameter of max. 3 mm and a head height of max. 2.2 mm (head diameter max. 10 mm) are required. The corresponding SLS\_HOLDER\_V1 bracket is supplied per default.

- Button on the front for releasing help calls
- Pull cord for releasing help calls
- Magnetic sensor integrated in the device
- Digital or analogue input
- Digital output
- Multi-colour LED for status indication
- Combined tracking technology via radio and infrared
- Simple familiarisation and management in the system with RFID
- Device monitoring in 30 seconds intervals

System compatibility	Securwatch SmartLiberty
Battery type	1 × CR2450, 3V lithium button cell battery
Interfaces	
Long-range technology	HF 868 MHz, bidirectional
Localisation technology	LF 125 kHz and infrared (940 nm, 36 kHz)
RFID antenna	13.56 MHz, passive RFID (ISO 15693 ICODE SLI R/W)
Degree of protection	IP65 (waterproof when exposed to jets of water)
Ambient temperature	-20 °C to +60 °C
Pull cord	approx. 1.2 m
Grip	20 × 30 mm (Ø×H)
Case material	plastic, latex-free
Case colour	black
Dimensions	100 × 90 × 22 mm (H×W×D)
Weight	200 g

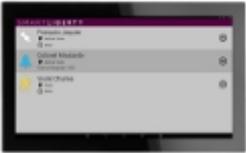
## SM-X356BZGAEED configuration tablet



**No.: 21-9220050-01**

For the configuration of the system, for the management of transponders, markers and reader during operation, and for the indication of alarm and fault messages. Furthermore, there is the possibility of logging via the Android system. For all features of the app on the tablets, area-wide WLAN is required.

## Alarm display 15,6" PoE



**No.: 21-9220000-01**

15.6" alarm display with touchscreen, LAN connection and PoE for displaying and processing alarm messages. The screen can be placed in care wards, staff rooms or reception areas.

## SLK\_STARTERKIT\_V1 replacement parts starter kit

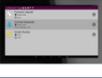


**No.: 21-9220018-01**

Case with the most important replacement parts for Securwatch. The case contains various small parts and wear parts as well as case parts for the on site repair of damaged components.

- 1 x screwdriver T6 [SLB\_RES\_SCREWDRIVER]
- 1 x SLB opening kit
- 1 x SLB opening base
- 1 x SLB opening tool
- 5 x set of screws [SLB\_SCREWS\_V2]
- 10 x battery [CR2450 CSM\_BATCR2450\_V1]
- 5 x clip [SLB\_STA\_CLIP\_V1]
- 5 x viewing window [SLB\_STA\_WINDOW\_V1]
- 2 x cover [SLB\_STA\_COVER\_V1]
- 2 x base [SLB\_STA\_BOTTOM\_V1]
- 2 x wristband [SLB\_RES\_WRISTBANDBUC]
- 2 x wristband [SLB\_RES\_WRISTBANDHOL]
- 2 x safety fastener [SLB\_RES\_LOCK\_V1]
- 2 x key [SLB\_RES\_LOCKKEY\_V1]
- 2 x pendant clip [SLB\_RES\_PENDANTCLIP]
- 5 x disposable wristband [SLB\_RES\_DISPOBAND\_V1]
- 2 x belt clip [SLB\_RES\_BELTCLIP\_V1]
- 2 x safety pendant [SLB\_RES\_PENDANT\_V1]
- 2 x bottom [SLB\_RES\_BOTTOM\_V1]
- 2 x cover [SLB\_RES\_COVERRED\_V1]
- 2 x cover [SLB\_RES\_COVERBLUE\_V1]
- 2 x cover [SLB\_RES\_COVERPINK\_V1]
- 2 x cover [SLB\_RES\_COVERYELLOW]

## System components and accessories

	Designation	Type	Article no.
	<b>Securwatch core switch</b> HPE Aruba Switch 6000 24G CL4 4SFP incl. Config	C-SWITCH SECUR-WATCH	21-9220202-01
	<b>Securwatch ward switch</b> HPE Aruba Switch 6000 24G CL4 4SFP incl. Config	ST-SWITCH SECUR-WATCH	21-9220203-01
	<b>SmartLiberty server desktop</b> incl. OS Windows 2022 server	SW SL SERVER DT	21-9220110-01
	<b>SmartLiberty server 19"</b> incl. OS Windows 2022 server	SW SL SERVER 19	21-9220111-01
	<b>SL User licence VISOMAX</b>	SLL_VI-SOMAX_USER_V1	21-9240001-01
	<b>SL User licence MAX</b>	SLL_MAX_EU_V1	21-9240002-01
	<b>motica care App</b>	SLL_VI-SOMAX_APP_V1	21-9240003-01
	<b>Sensor module</b>	SLS_MODULE_V1	21-9220004-01
	<b>Bracket for sensor module (replacement)</b>	SLS_HOLDER_V1	21-9220005-01
	<b>Case for sensor module (replacement)</b> Cover including bottom side	SLS_COVER_V1	21-9220006-01
	<b>Bottom side for sensor module (replacement)</b>	SLS_BOTTOM_V1	21-9220007-01
	<b>Cord for sensor module (replacement)</b> Length 1.5 m	SLS_PULLCORD_V1	21-9220008-01
	<b>Adhesive magnet for sensor module</b> for sensor module	SLS_MAGNET_V2	21-9220009-01
	<b>Cable clamp</b> for sensor module	SLS_CABLE_HOLDER_V1	21-9220010-01
	<b>Configuration tablet SL</b> Samsung Galaxy Tab Active 5 Pro	SM-X356BZGAEEE	21-9220050-01
	<b>Alarm display 15,6" PoE</b> without mounting equipment and table stand	SLD_ALARMDISPLAY_V2	21-9220000-01

	<b>Designation</b>	<b>Type</b>	<b>Article no.</b>
	<b>NFC reader module</b> for alarm display 15,6" PoE	SLD_NFCMODULE_V1	21-9220003-01
	<b>VESA wall mounting kit</b> for alarm display 15.6", PoE, 100 × 100 mm	SLD_MOUNT- PLATE_V1	21-9220001-01
	<b>Monitor table stand (VESA)</b> for alarm display 15,6" PoE	SLD_BASE_V1	21-9220002-01
	<b>IO-module (8 in/8 out)</b> 24 V DC supply is additionally required	SLI_IOMODULE_V1	21-9220014-01
	<b>PoE splitter</b> supplies 24 V DC for IO-module	PWE_24V60WDIN_V1	21-9220017-01
	<b>IO-module mounting bracket</b>	SLI_IOHOLDERUNI_V1	21-9220015-01
	<b>IO-module DIN</b>	SLI_IOHOLDERDIN_V1	21-9220016-01
	<b>Replacement parts starter kit</b>	SLK_STARTERKIT_V1	21-9220018-01
	<b>Contact mat 1100 × 700 mm</b> requires radio sensor board	SEN_CARPET_10V1	21-9220012-01
	<b>Radio motion sensor</b> requires radio sensor board	SEN_MOTION_V1	21-9220013-01
	<b>Radio sensor board</b> for contact mat or wireless motion sensor	SLS_SENSOR- BOARD_V1	21-9220011-01
	<b>WLAN access point SmartLiberty</b>	UAP-AC-PRO	21-9220021-01

## 4.2 Securwatch Pro single-door-system

### 4.2.1 Reader



No.: 21-9100053-01

#### V100-410 LF/HF reader/receiver unit

The reader/receiver unit basic transmits the LF-ID, receives the signals of the transponders in the physical proximity and forwards the information accordingly. A simultaneous detection of several transponders and an automatic field regulation is possible. The power supply unit is included in the delivery.

- Detection range adjustable up 6 metres in radius
- Active transponder system
- Reliable three-dimensional detection
- Simultaneous detection of several transponders
- Automatic regulation of the detection field
- Battery monitoring in the detection field: Transponder sends a notification when the battery capacity is lower than 10 percent

System compatibility	Securwatch Pro
Operating voltage range	12 to 26 V DC
Radio frequency	125 kHz detection field, 868 MHz communication frequency
Range	up to 6 m
Inputs/outputs	3 × relay 2 × optocoupler input
Mounting	Surface mounting
Degree of protection	IP42
Case material	ABS, PA-765
Case colour	white
Dimensions	143 × 230 × 34.5 mm (H×W×D)
Weight	approx. 500 g

## LF reading unit V100-413



**No.: 21-9100054-01**

Reading unit incl. power supply unit/socket power supply.

- Detection range adjustable up 6 metres in radius
- Active transponder system
- Reliable three-dimensional detection
- Simultaneous detection of several transponders
- Automatic regulation of the detection field
- Battery monitoring in the detection field: Transponder sends a notification when the battery capacity is lower than 10 percent

System compatibility	Securwatch Pro
Operating voltage range	12 to 26 V DC
Radio frequency	125 kHz detection field, 868 MHz communication frequency
Range	up to 6 m
Inputs/outputs	2 × optocoupler input
Mounting	Surface mounting
Degree of protection	IP42
Case material	ABS, PA-765
Case colour	white
Dimensions	143 × 230 × 34.5 mm (H×W×D)
Weight	approx. 500 g

## HF receiver unit V100-411



**No.: 21-9100062-01**

The receiver unit works together with a reading unit and transponders. The reading unit (LF) generates a spherical electromagnetic detection field. This "wakes" sleeping transponders from their stand-by mode as soon as they are brought into the field. At the same time, the reading unit transmits its identification number (LF ID) to the transponder. The transponder in the field transmits its own identification number (tag ID) and the received LF ID to the receiver unit (HF). The received data is processed and sent by the receiver unit via potential-free contacts to the in-house call system or mobile PSA/DECT systems. HF dependencies can be realized by external devices (reed contacts).

System compatibility	Securwatch Pro
Operating voltage range	10 to 36 V DC
Radio frequency	868 MHz communication frequency
Inputs/outputs	3 × relay 2 × optocoupler input
Mounting	Surface mounting
Degree of protection	IP42
Case material	ABS, PA-765
Case colour	white
Dimensions	143 × 230 × 34.5 mm (H×W×D)
Weight	approx. 500 g

## V120-212 LF/HF reader/receiver unit outdoor



No.: 21-9100034-01

The reader/receiver unit basic transmits the LF-ID, receives the signals of the transponders in the physical proximity and forwards the information accordingly. A simultaneous detection of several transponders and an automatic field regulation is possible. The UV-resistant case with degree of protection IP 65 enables outdoor use.

- Detection range adjustable up 6 metres in radius
- Active transponder system
- Reliable three-dimensional detection
- Simultaneous detection of several transponders
- Automatic regulation of the detection field

System compatibility	Securwatch Pro
Operating voltage range	12 to 26 V DC
Radio frequency	125 kHz detection field, 868 MHz communication frequency
Range	up to 6 m
Inputs/outputs	3 × relay 2 × optocoupler input
Mounting	Surface mounting
Degree of protection	IP65
Case material	ASA+PC-FR
Case colour	light grey RAL 7035
Dimensions	220 × 220 × 50.5 mm (H×W×D)
Weight	approx. 700 g

## S530-002 magnet contact set



**No.: 21-9023201-01**

Consisting of two cases: The wired case contains the reed contact and is attached to the door frame. The other case contains a magnet and is mounted directly to the door panel.

Connection cables	6 m
Diameter	3 mm

## Reader and accessories

	Designation	Type	Article no.
	<b>LF/HF reader/receiver unit</b>	V100-410	21-9100053-01
	<b>LF reading unit</b> including connector and socket power supply	V100-413	21-9100054-01
	<b>HF receiver unit</b> incl. plug-in power supply unit	V100-411	21-9100062-01
	<b>LF/HF reader/receiver unit outdoor</b>	V120-212	21-9100034-01
	<b>Magnet contact set</b>	S530-002	21-9023201-01
	<b>Mast mounting set</b> Outdoor case Plus	V120-222	21-9100045-01

## 4.2.2 Transponder

### SA V410-103 SA staff transponder clip



No.: 21-9110152-01

Transponder with clip fastener for care staff to suppress alarms when accompanying a person with dementia through the detection area. For safety reasons, canceling is only possible within the detection area by simultaneously pressing the buttons.

- Clip fastener for attaching to clothes
- Cancel button and alarm suppression
- LED for status indication
- Battery monitoring and battery
- Battery replaceable without professional assistance
- Three-dimensional antenna for reliable detection, independent of the location

System compatibility	Securwatch Pro
Battery type	1 × CR2032, 3V lithium button cell battery
Frequency bands	868.0 to 868.6 MHz
Activation frequency	125 kHz
Transmission power	+5 dB with 868 MHz
Degree of protection	IP67
Operating temperature	-20 °C to +45 °C
Attachment	Clip fastener
Band material	Leather
Dimensions	66 × 103 × 11 mm (H×W×D)
Weight	26 g

## SA V420-117 dementia transponder



No.: 21-9111004-03

Transponder in a wristband case with fabric wristband and patented fastener for localising dementia patients.

- LED for status indication
- Battery monitoring and battery
- Battery replaceable without professional assistance
- Three-dimensional antenna for reliable detection, independent of the location
- Seal can be opened and closed as often as required
- Length adjustable when open
- Can only be opened with a magnetic key

System compatibility	Securwatch Pro
Battery type	1 × CR2032, 3V lithium button cell battery
Frequency bands	868.0 to 868.6 MHz
Activation frequency	125 kHz
Transmission power	+11 dBm
Degree of protection	IP67
Operating temperature	-20 °C to +45 °C
Attachment	Wristband with safety fastener
Band material	PP fabric band in leather look
Colour	black
Case material	ABS, PA-757
Case colour	grey, RAL 7016
Dimensions	
Case	50 × 47.5 × 18 mm (H×W×D)
Band with fastener	26 × 280 × 8 mm (H×W×D)
Weight	30 g

## Colortag SA V420-121 SA patient transponder



**No.: 21-9111005-03**

Transponder with Colortag fastener for localising patients with dementia.

- LED for status indication
- Battery monitoring and battery
- Battery replaceable without professional assistance
- Three-dimensional antenna for reliable detection, independent of the location
- Seal can be opened and closed as often as required
- Can only be opened with a magnetic key

System compatibility	Securwatch Pro
Battery type	1 × CR2032, 3V lithium button cell battery
Frequency bands	868.0 to 868.6 MHz
Activation frequency	125 kHz
Transmission power	+5 dB with 868 MHz
Degree of protection	IP67
Operating temperature	-20 °C to +45 °C
Attachment	Colortag fastener
Band material	Leather
Dimensions	50 × 47 × 10 mm (H×W×D)
Weight	26 g

## **W211-200 magnetic lock key**



Universal magnetic lock key for colourtag fastener and wristband or ankle band fastener. The special magnetic lock key is designed for opening the patented fasteners of the wristbands and colourtag fasteners.

**No.: 21-9131014-01**

## Transponder and accessories

	Designation	Type	Article no.
	<b>Staff transponder clip SA</b> Transponder with leather clip	V410-103 SA	21-9110152-01
	<b>Dementia transponder SA</b> Fabric strap, safety fastener	V420-117	21-9111004-03
	<b>Patient transponder Colortag SA</b> Colortag fastener	V420-121 SA	21-9111005-03
	<b>Magnetic lock key</b>	W211-200	21-9131014-01
	<b>Mother transponder repair set</b> without band	RS2018-009	21-9131300-01
	<b>Transponder repair set 2.18</b> without band	RS2018-001	21-9131301-01
	<b>Transponder repair set 2.18</b> without band, with dial	RS2018-005	21-9131303-01
	<b>Conversion kit 2.15 to 2.18</b> Safety fastener	S710-217	21-9131304-01
	<b>Transponder repair 2.18</b> Repair flat rate for staff/patient transponder	RS2018-100	21-9131350-01

## 4.3 Securwatch Pro accessories

	<b>Designation</b>	<b>Type</b>	<b>Article no.</b>
	<b>LF/HF plug-in power supply unit</b> 230 V to 12 V DC	V100-050	21-9100050-01
	<b>LF/HF socket power supply unit</b> 230 V to 12 V DC, 500 mA	V100-055	21-9100051-01
	<b>PoE splitter</b> HF/LF power supply without socket	S520-028	21-9100052-01
	<b>Loop antenna ring 0.3 m</b> Loop antenna as a ring with a diameter of 0.3 m	S310-200	21-9131100-01
	<b>Loop antenna ring 1.5 m</b> Loop antenna as a ring with a diameter of 1.5 m	S310-400	21-9131101-01
	<b>Loop antenna 10 m to 50 m</b> as longitudinal loop 10 m to 50 m loop length	S310-500	21-9131102-01
	<b>Loop antenna 51 m to 75 m</b> as longitudinal loop 51 m to 75 m loop length	S310-600	21-9131103-01
	<b>Additional LF antenna flush-mounted</b> Basic for flush mounting	V311-202	21-9131111-01
	<b>Additional HF antenna</b> incl. 2 m supply cable for extending the radio range	S320-001	21-9131113-01
	<b>Additional HF antenna supply cable</b> Supply cable up to 8 m – by the metre	S320-003	21-9131114-01

## 5 Power supply

### 5.1 Power supply units



No.: 21-2300000-01

#### CP10.241-M1 power supply unit VDE 0834 24 V/10 A

Power supply unit for 24 V power supply of wards and other areas requiring low voltage. The power supply unit is suited for use in medical facilities and complies with the special protective measures through the galvanically isolated of the output voltage PELV/SELV with 2 × MOPP. Suited for top-hat rail and wall mounting.

For surface mounting, the corresponding wall-mounted bracket ZM4.WALL or mounting bracket ZM12.SIDE is required; for top-hat rail mounting, a 35 mm DIN top-hat rail must be provided. The ZM12.SIDE mounting bracket is suitable for top-hat rail and wall mounting.



#### NOTE

The CP10.241-M1 power supply unit corresponds to standard IEC 60601-1 3rd Edition with regard to the electrical safety of call systems and therefore complies with the safe isolation 2 × MOPP required in accordance with VDE 0834:2016-06.

- Safe isolation 2 × MOPP in accordance with IEC 60601-1 3rd Edition
- Thermal cut-off, overload/overvoltage and short circuit protection
- Relay contact and LED for monitoring the output voltage
- Mounting clips for 35 mm DIN rails for a simple and fast installation included

System compatibility	Visocall IP, Visocall Plus, Visoopt, Secur-watch
Rated input voltage	100 to 240 V AC (50 to 60 Hz)
Rated output voltage	24 to 28 V DC, adjustable with potentiometer
Rated input current	2.15 A (100 V AC), 1.13 A (230 V AC)
Rated output current	12 to 10.3 A typ.
Interfaces	
Input	3 × spring-loaded terminals (N, L, PE) for wire diameters of up to 6 mm <sup>2</sup> (single-wire) or 4 mm <sup>2</sup> (strand)
Outputs	5 × spring-loaded terminals (2 × positive and 3 × negative) for wire diameters of up to 6 mm <sup>2</sup> (single-wire) or 4 mm <sup>2</sup> (strand)
Relay contact	2 × plug-in terminals for wire diameters of up to 1.5 mm (single-wire or strand)
Mounting	surface-mounted or top-hat rail
Degree of protection	IP20
Ambient temperature	−25 °C to +70 °C
Relative air humidity	5 to 95% without condensation
Case material	Aluminium alloy with galvanised steel
Dimensions	124 × 39 × 117 mm (H×W×D)
Weight	620 g

## CP20.241-M1 power supply unit VDE 0834 24 V/20 A



No.: 21-2300010-01

Power supply unit for 24 V power supply of wards and other areas requiring low voltage. The power supply unit is suited for use in medical facilities and complies with the special protective measures through the galvanically isolated of the output voltage PELV/SELV with 2 × MOPP. Suited for top-hat rail and wall mounting.

For surface mounting, the corresponding wall-mounted bracket ZM4.WALL or mounting bracket ZM12.SIDE is required; for top-hat rail mounting, a 35 mm DIN top-hat rail must be provided. The ZM12.SIDE mounting bracket is suitable for top-hat rail and wall mounting.



### NOTE

The CP20.241-M1 power supply unit corresponds to standard IEC 60601-1 3rd Edition with regard to the electrical safety of call systems and therefore complies with the safe isolation 2 × MOPP required in accordance with VDE 0834:2016-06.

- Safe isolation 2 × MOPP in accordance with IEC 60601-1 3rd Edition
- Thermal cut-off, overload/overvoltage and short circuit protection
- Relay contact and LED for monitoring the output voltage
- Mounting clips for 35 mm DIN rails for a simple and fast installation included

System compatibility	Visocall IP, Visocall Plus, Visoopt, Secur-watch
Rated input voltage	100 to 240 V AC (50 to 60 Hz)
Rated output voltage	24 to 28 V DC, adjustable with potentiometer
Rated input current	4.26 A (120 V AC), 2.23 A (230 V AC)
Rated output current	20 to 17.1 A typ.
Interfaces	
Input	3 × spring-loaded terminals (N, L, PE) for wire diameters of up to 6 mm <sup>2</sup> (single-wire) or 4 mm <sup>2</sup> (strand)
Outputs	5 × spring-loaded terminals (2 × positive and 3 × negative) for wire diameters of up to 6 mm <sup>2</sup> (single-wire) or 4 mm <sup>2</sup> (strand)
Relay contact	2 × plug-in terminals for wire diameters of up to 1.5 mm (single-wire or strand)
Mounting	surface-mounted or top-hat rail
Degree of protection	IP20
Ambient temperature	−25 °C to +70 °C
Relative air humidity	5 to 95% without condensation
Case material	Aluminium alloy with galvanised steel
Dimensions	124 × 48 × 127 mm (H×W×D)
Weight	830 g

## Power supply unit 5 A



No.: 21-2301003-01

Power supply unit for supplying power to Visocalll systems in retirement homes where the relevant standards (VDE 0834) do not apply.

Operating voltage	230 V AC
Power supply frequency	50 to 60 Hz
Rated output voltage	24 to 28 V DC
Rated output current	5 A (with 24 V)
Rated input current	0.6 A (230 V AC)
Power failure bypass	35 ms
Dimensions	32 x 124 x 102 mm (HxWxD)
Weight	440 g

## Power supply unit 10 A



No.: 21-2301004-01

Power supply unit for supplying power to Visocalll systems in retirement homes where the relevant standards (VDE 0834) do not apply.

Operating voltage	230 V AC
Power supply frequency	50 to 60 Hz
Rated output voltage	24 to 28 V DC
Rated output current	10 A (with 24 V)
Rated input current	1.13 A (230 V AC)
Power failure bypass	37 ms
Dimensions	39 x 124 x 117 mm (HxWxD)
Weight	600 g

## Power supply unit 20 A



No.: 21-2301005-01

Power supply unit for supplying power to Visocalll systems in retirement homes where the relevant standards (VDE 0834) do not apply.

Operating voltage	230 V AC
Power supply frequency	50 to 60 Hz
Rated output voltage	24 to 28 V DC
Rated output current	20 A (with 24 V)
Rated input current	2.23 A (230 V AC)
Power failure bypass	32 ms
Dimensions:	48 x 124 x 127 mm (HxWxD)
Weight	830 g

## Power supply units and accessories

	Designation	Type	Article no.
	<b>Power supply unit VDE 0834 24V/10A</b> DIMENSION C-Serie 240W, 2 x MOPP/IEC 60601-1, 3rd edition	CP10.241-M1	21-2300000-01
	<b>Power supply unit VDE 0834 24V/20A</b> DIMENSION C-Serie 480W, 2 x MOPP/IEC 60601-1, 3rd edition	CP20.241-M1	21-2300010-01
	<b>DIMENSION 90° mounting bracket</b> for the side mounting of the power supply unit VDE0834 24V/10A	ZM12.SIDE	21-2300001-01
	<b>Power supply unit 5 A</b> 24 V/120 W/5 A	DIMENSIONC- SERIE120W	21-2301003-01
	<b>Power supply unit 10 A</b> 24 V/240 W/10 A	DIMENSIONC- SERIE240W	21-2301004-01
	<b>Power supply unit 20 A</b> 24 V/480 W/20 A	DIMENSIONC- SERIE480W	21-2301005-01
	<b>Pulse power supply unit kit</b> with 2 x CP10.241-M1, 16A automatic circuit breaker, 10 terminal blocks, wiring	CP10.241-M1 20A KIT	21-2300009-01
	<b>Redundancy module, 24 V DC, 2 x 10 A</b> for redundant execution of the 24 VDC power supply with automatic load distribution	YR20.246	21-2300006-01
	<b>Redundancy module, 24 V DC, 2 x 20 A</b> for redundant execution of the 24 VDC power supply	RM-2X20	FC008715
	<b>Input/output module IO-M-P</b>	IO-M-P	21-1023001-01
	<b>DC circuit breaker C16 A</b> for 2,5 mm <sup>2</sup> conductor cross-section	BMS0-DC C 16/1	21-2300005-01
	<b>DC circuit breaker 3 A</b> Characteristic C, 3 A, unipolar, 10 kA	BM015103	21-2300007-01
	<b>DC circuit breaker 10 A</b> Characteristic C, 10 A, unipolar, 10 kA	BM015110	21-2300008-01

## 5.2 Uninterruptible power supply

### 5PX 1500i RT2U G2 EATON UPS



No.: 21-2300011-01

Power supply for interruption-free supply of back-up power in the event of power failures. For use as primary side UPS for call system components.

System compatibility	Visocall IP, Visocall Plus, Securwatch
Rated power	1500 VA/1500 W
Rated input voltage	160 to 294 V AC (47 to 70 Hz)
Rated output voltage	adjustable to: 200, 208, 220, 230, 240 V AC (50/60 Hz)
Inputs/outputs	1 x IEC C14 input (10 A) 8 x IEC output (10 A)
Mounting	19" network cabinet (2 height units)
Ambient temperature	0 °C to +40 °C
Dimensions	85.5 x 438 x 448 mm (HxWxD)
Weight	22.4 kg

### Secolog IP emergency power supply EATON Ellipse ECO 1600 USB DIN



No.: 23-1020001-01

Power supply for interruption-free supply of back-up power in the event of short-term power failures. For use on computers such as Secolog IP PCs or control panels. Rechargeable batteries are supplied as standard.

System compatibility	Secolog IP, Visocall IP, Visocall Plus, Securwatch
Rated power:	1600 VA/1000 W
Rated input voltage	184 to 264 V (adjustable to 161 to 284 V) 230 V (46 to 70 Hz)
Rated output voltage	184 to 264 V (adjustable to 161 to 284 V) 230 V (50/60 Hz)
Inputs/outputs	1 x IEC C14 input 8 x output
Ambient temperature	0 °C to +35 °C
Dimensions	305 x 81 x 312 mm (HxWxD)
Weight	7.8 kg

## UB20.241 DC UPS control unit



No.: 21-2300003-01

The uninterruptible power supply control unit is used together with a 24 V power supply and batteries to bridge power failures or voltage fluctuations.

Rated input voltage	18 to 30 V DC
Rated output voltage	in mains operation like input voltage adjustable in battery operation to: 22.5, 24, 25, 26 V
Rated output current	
Mains operation	25 A permanent, 30 A for 4 s
Battery operation	20 A permanent, 30 A for 4 s with 22.5 V
Ambient temperature	-40 °C to +70 °C
Dimensions	124 × 46 × 127 mm (H×W×D)
Weight	700 g

## UZK24.121 battery module 24 V/12 AH passive



No.: 21-2300004-01

The battery module consists of two series-connected, sealed and maintenance-free lead-acid batteries, which are installed in a metal frame with all necessary connection cables and protective measures.

Battery type	VRLA lead-acid battery
Battery voltage	24 V DC
Battery current	max. 35 A for discharge max. 3.5 A for charge
Battery fuse	35 A (ATO fuse)
Charging voltage	27.8 V with 10 °C 27.5 V with 20 °C 27.15 V with 30 °C 26.8 V with 40 °C
Mounting	DIN rail
Ambient temperature	-10 °C to +40 °C
Dimensions	186 × 203 × 143 mm (H×W×D)
Weight	9 kg

## UPS (Universal power supply) devices and accessories

	Designation	Type	Article no.
	<b>EATON UPS 5PX 1500i RT2U G2</b> 1500 Watt 9/24 min	5PX1500IRT2UG2	21-2300011-01
	<b>Secolog IP emergency power supply</b> EATON Ellipse ECO 1600 USB DIN	SECOLOG IP EPS	23-1020001-01
	<b>EATON UPS 5PX EBM 48V RT2U</b> EATON battery extension for 1000/1500VA	5PXEBM48RT2UG2	21-2300012-01
	<b>Spare battery</b> for UPS electronics 5PX1500IRT (UPS electronics holds 4 batteries)	SV22-2829009-01-01	22-2829009-01
	<b>Spare battery</b> for UPS battery module 5PXEBM48RT (battery module hold 8 batteries)	SV22-2829010-01-01	22-2829010-01
	<b>UPS Eaton Kabel IEC320/C14-C13</b> for the connection of a consumer to an UPS electronics 5PX1500IRT, cable length 1.8 m, C13 connection, angled	K-USV-C14	FC010724
	<b>UPS Eaton relay module</b> UPS relay module for fault analysis (e.g. connection to IO-M-P)	RELAY-MS	FC010723
	<b>UPS cable Schuko IE320/C13</b> for the connection of a UPS electronics 5PX1500IRT at a power outlet, cable length 2 m, C13 connector, lockable	K-SCHUKO-C13	FC010725
	<b>UPS (Universal power supply) cable fault analysis</b> Cable for the connection of a UPS (Universal power supply) relay module RELAY-MS to an input (e.g. connection to IO-M-P)	K-SUBD-STÖR	FC010726
	<b>UPS (Universal power supply) wall-mounted bracket</b> for UPS Eaton 5PX 1500I RT2HE and UPS Eaton 5PX EBM 48V RT2HE, dimensions: 63 × 20 × 66 cm (H×W×D), capacity: 44 × 17.5 × 51 cm (H×W×D)	WH-USV	FC010727
	<b>UPS (Universal power supply) fault analysis relay</b> Relay for 24 V fault analysis for central control technology	USV-REL	FC010728
	<b>Rechargeable battery 12 V/7 Ah (replacement)</b> Replacement rechargeable battery for SecoLOG IP emergency power supply (UPS holds 2 rechargeable batteries)	AKKU 7	HG691021

	<b>Designation</b>	<b>Type</b>	<b>Article no.</b>
	<b>Input/output module IO-M-P</b>	IO-M-P	21-1023001-01
	<b>DC UPS control unit</b> for power supply unit VDE 0834 24 V/10 A	UB20.241	21-2300003-01
	<b>Battery module 24 V/12 AH passive</b> for power supply unit VDE 0834 24 V/10 A	UZX24.121	21-2300004-01

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