CALLVISION®
healthcare systems

13 years R&D Experience

- System Integration
- Home Health and Patient Monitoring Devices
- Portable Diagnosis and Treatment Devices

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VISION

Developing new products and systems related with the topics of Emergency Communication in health care, Wearable Health Technologies and Home Health Service issues on the other hand studying for the new technologies that may be needed in the future with the analysis of our products

MISSION

Encourage the domestic production by our products and systems that are related with the issues of Emergency Communication in health care, Wearable Health Technologies and Home Health Services, create new employment areas and markets, reduce the need for overseas and product marketing abroad

ABOUT US

Callvision was established in METU KOSGEB Technology Development Center on 24.02.2004. Between 2004 – 2008, Callvision worked on the research and development (R&D), production of Restaurant Automation System and Wireless Waiter Paging System also served as the chairman of the marketing activities of these systems. Moreover Callvision created R&D to various institutions such as ASELSAN, GESS Electronic, Agricultural Bank during that period.

Between years 2008 - 2009, in a 16 month time period , Callvision found a place in health Sector and in the area of Call Systems successfully completing the "Wireless Nurse Call System - Callvision Paging System" project with the support of TUBİTAK TEYDEB in a manner of innovative attitude. In a short time period by developing the Emergency code (Blue-Pink-White Code) and Emergency Service Konsültan Paging System, Callvision strengthened the TUBİTAK project and became an industry-leading company in these areas. Respect to the projects of

Emergency Code (Blue - Pink - White - Red Code) Systems
Emergency Service Konsültan Demand Paging System
IP-Based Nurse Call System
Innovative Hospital Paging System with Cloud Architecture
Call System
Operating Room Control Panel
Medical Isolated Power Panel
Patient Acknowledgment System
Active & Passive RFID System
Viewable and Manageable Emergency Lighting and Steering System with Central Battery System
Patient Tracking System
Call and Tracking System for the emergency services

Callvision has managed to become the leading company within the health sector. Furthermore as a ITEA2 Technology Partner of TÜRKCELL TEKNOLOJİ company, Callvision has completed the R&D of the new generation products associated with the subjects of microprocessor and the server software, system analysis and design, requirement analysis,system tests, standardalization and integration with other automation systems. These products are named as :

Wireless Patient Wrist
Wireless Collar Card
Positioning Systems

INDEX

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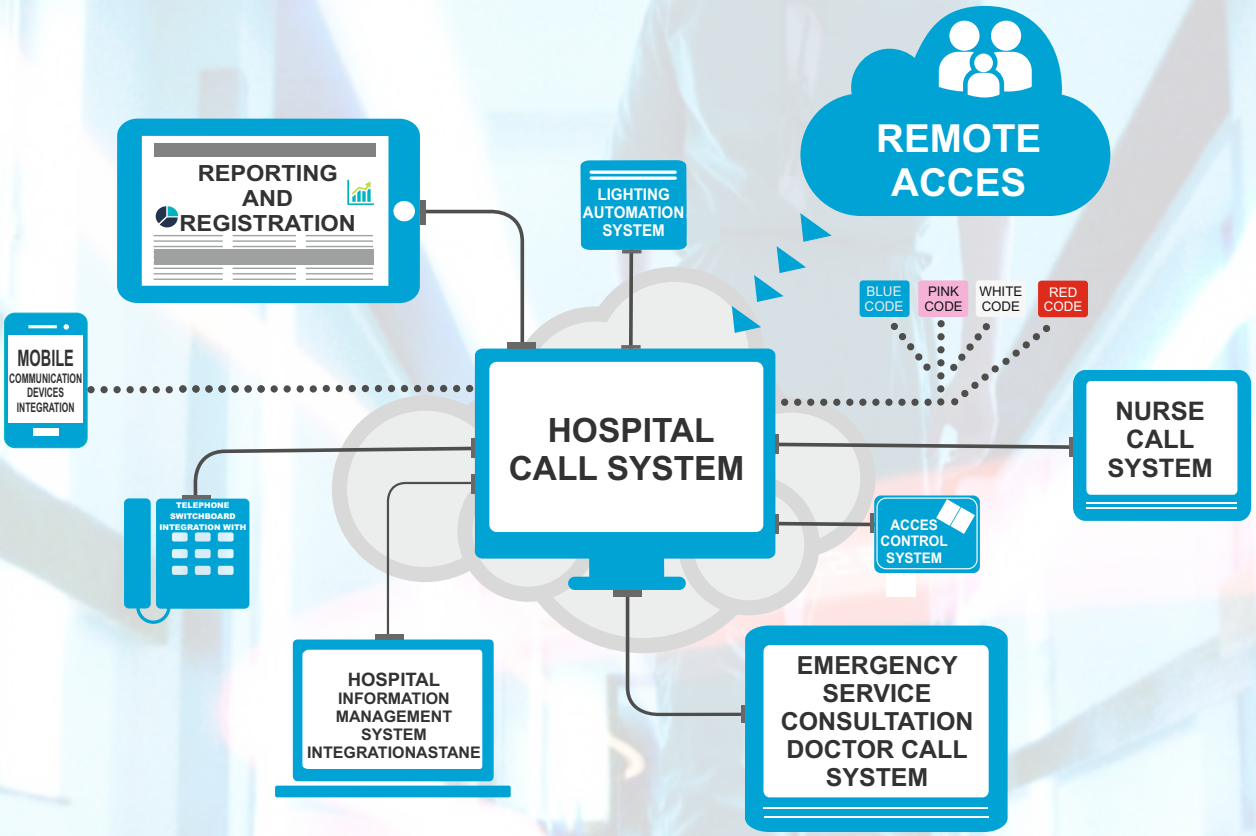


IP NURSE CALL SYSTEM

IP NURSE CALL SYSTEM

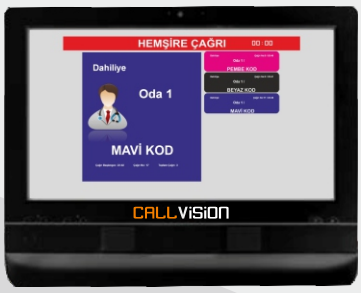
CALLVISION

Hospital Paging Switchboard Server

Without need of any person or operator, Hospital call exchange server is a unit that keeps recording and reports of Nurse Calls, Blue - pink - white code calls,starts consultation and generates aggregate statistic via local area network. At the same time it can be integrated with all of the automation systems. Hospital call exchange server can operate continuously 7/24 . It can integrate with any brand of switchboard. Compatible with the hospital information management systems.

Emergency Service Consultation Call Panel

With this call panel used in emergency services, for the needs of Consultation in emergency service, a call be sended to the doctor ralated to the brach. The Touch Screen Panel PC - 17", 19", 21",is a unit that have aesthetic and ergonomic structure.
Emergency Code Call User Panel
Panel has the capability of creating emergency codes such as Blue Code, Pink Code , White Code.
Consultant Doctor Call Software
The Sofware on panel, has the capability of creating calls for doctors, recording and reporting the service time period of doctors.
Staff Smart Cards and Authorization
Operations on the panel can only be performed with qualified personnels smart cards. Thus real data reports based on Consultant Doctor Call software, staff or branch can be produced.



Nurse Call Panel

Nurse call panel are the units that , enables the nurses for viewing the status of room calls and make them aware of emergency situations. The Touch Screen Panel PC with the size of - 17", 19", 21" ,is a unit that have aesthetic and ergonomic structure. Transmits the information of room and bed the call occured to nurses via visually and auditory. Nurse CallPanel has a software that has capability of holding performance reporting records of events and has capability of reporting.

CALLVISION®

Room Control Panel 4,3 / 5

Device has all of the standard functions that can be needed in a hospital room. It possible to use the device alone but also it can work with our in room units. RFID reader can make the staff qualification. Device data can be transmited online/offline to the Nurse Call Panels and servers. Has variety of communication channels compliance with specific application scenarios. Ön panelde bulunan USB portu kullanılarak kullanım senaryosuna göre güncellenebilir. By using the USB port located on the front panel, it can be updated according to the usage scenario

Call and Call Cancel Unit

Patient bedside call units are smart and stylish units that are used for calling nurse from patient rooms. Different types of hand sets and patient monitoring devices can be connected to these units.There is a keypad exist used for creating emergency call and allowing the nurse to stop call.

Hand Type Call Unit

Patient handset call unit, have been designed for the patient to call nurse from his/her bed without reaching the bedside call unit. Available as an option for creating the lighting control and the cleaning staff call.

Bath / WC Emergency Call Unit

Patient WC/Bath call unit, are stylish and smart units that allows patients calling nurse support from baths and toilets. These units equipped with a pull cord are used for creating calls emergency cases occured in the wet ground.

IP NURSE CALL SYSTEM

Overhead Warning Light

Warning light consisting of Red - Green - Blue color of the warning lights, is positioned on the patients bedroom door to be seen easily and to avoid loss of time for nurses reach to the patient. In normal situations all the lights are off. the lights are turned on the states of Nurse Call, end of call and blue, pink, white code.

Wireless Transmitter Device

The wireless transmitters placed on specific points in the hospital, the information messages from systems are sended to staff pagers located various points in the hospital and DECT phones.

Pager

Messages are transmitted rapidly and explicitly to the Hospital staff via Mobile phone, DECT phone or Pagers.
Device keeps the records of the transmission time and read time, so the inspection can be made easily.
Device can be adjusted for creating different types of calls to different types of alerts.

Electronic Safety Badge

SafeCARD®, is an emergency assistance call equipment for employees have to work with face to face threats. It is fashionable, easy to carry on and has a staff collar card view. With only one button a call can be transmitted to emergency assistance team also transmits the position of the employee in the building. SafeCARD®, is your closest assistant in your most urgent moments.

IP HOUR - CHORONOMETRE

- Birth and Travail Room
- Emergency Rooms
- Intensive Care Rooms
- Radyology, Tomography etc Rooms

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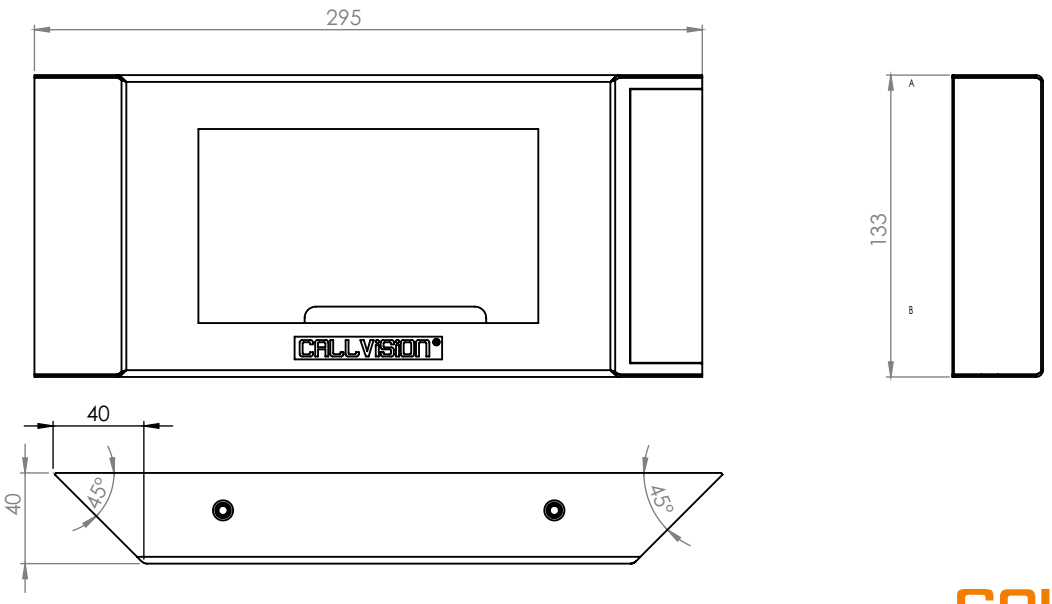
IP SAAT - KRONOMETRE

Preferences

Time Information	Medicine and Digital Elapsed Time
Information Display	Display patient and ilnessess informations
Medication Follow up	Communication with HBYS and medicine follow-up
Updating	Real time readout from server and authomathical timestamp updating
Card	Proximity card reader with Authorized personnel
Reporting	Web-based reporting
Keypad	With touch screen chronometer start/stop
Panel Settings	Administrative Panel Settings
Ethernet	10 / 100 Mbps Ethernet
Monitor	7" Touchable LCD screen
Optional	PoE (Power over Ethernet)
Protection Class	IP 54
Case	Stainless safe box
Options	Surface Mounted / Flush Mounting Option
Supply	12 / 24 VDC
Standards	TS EN 60601-1-2, TS EN 60601-1



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Hospital Security Tracking System; consists of Pink Code, White Code Systems and is a communication and automation system that these components are integrated and controlled.

Active Baby Tracking Bracelet with Position Feature

- Encrypted, wireless Two-way communication
- Transmit the data of mother location in hosptial , battery level and signal power to the server
- The determination of the babies immobility or mobility
- Hardware unique ID
- Pairing with wrist of Mother
- Pairing with Call Modules Active collar Card Type
- Cord and battery included maximum 20 grams weight

Active Mother Tracing Bracelet with Position Feature

- Encrypted, wireless Two-way communication
- Transmit the data of mother location in hosptial , battery level and signal power to the server
- The determination of the mothers immobility or mobility
- Hardware unique ID
- Pairing with wrist of baby
- Pairing with Call Modules Active collar Card Type
- Cord and battery included maximum 40 grams weight

Active Calling Module with Position Feature - Name Badge Type

- Encrypted, wireless Two-way communication
- Transmit the data of personel location in hosptial , battery level and signal power to the server
- The determination of the personels immobility or mobility
- Hardware unique ID
- Start call button
- Stop call button
- Activation with the authorization from server
- Charcable

Seconds
life salvage...

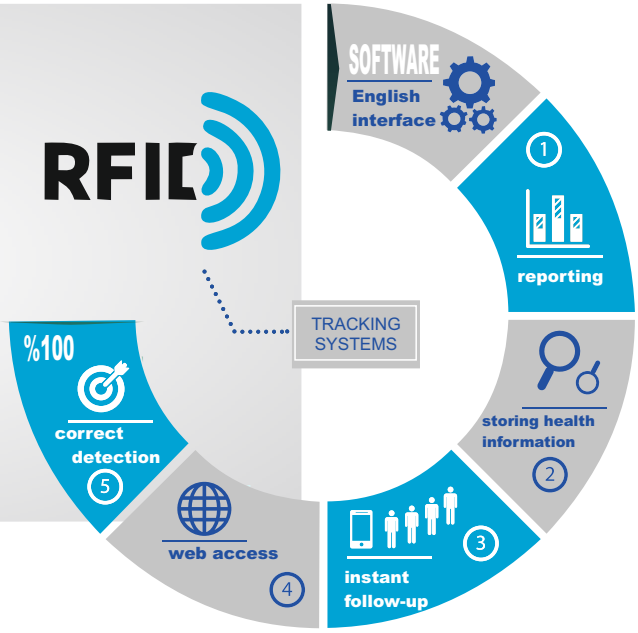
CALLVISION®

Location Browser

- Communication with Patient Monitoring System Server via Ethernet
- Encrypted, bidirectional and wireless communication with Baby-mother follow up wrist strap and active call module
- Ability to transmit data packages to patient tracking system server from products of baby - mother follow up wrist strap and active call modules that exists 10 meters in diameter
- Ability to transmit commands from patient tracking system server to other devices in its own coverage area
- Works as a repeater unit
- Pairing with collar card type active call modules

Patient Monitoring System Server

- ✓ Linux Operating System
- ✓ Corporation and Staff Module
- ✓ Device and Device Health Module
- ✓ Entrusting Module
- ✓ Tracking Module
- ✓ Messaging Module
- ✓ System Settings Module
- ✓ Web-based reporting Module
- ✓ Security and Protocol Standards



CALLViSiON®

RESPIRATION ISOLATION

DROPLET ISOLATION

CONTACT ISOLATION

PATIENTS WHO HAVE RISK TO FALL

PATIENTS WITH LOW IMMUNE SYSTEM

RFID

WIRELESS PATIENT INFORMATION SYSTEM

Wireless patient information system is an automation and a communication system which is used to inform medical staff and patients' relatives that a patient needs respiration,droplet,contact isolation, patients who have low immune system and risk to fall

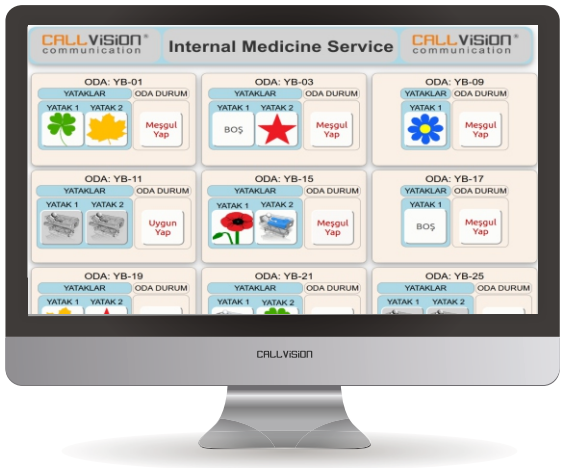
Wireless Patient Information Panel

- Wireless, bidirectional communication with location browsers
- 7" LCD Monitor
- Patient Information for 2 beds
- Informative images for respiration Isolation, Droplet Isolation, Contact Isolation, Patients with a risk of falling, Patients with low immune system
- Room-Bed-Patient Information
- Administered with a web based application from service management panel with authorized personel
- 12/24V DC

Location Browser

- Communication with RFID System Server via Ethernet
- Wireless, encrypted and bidirectional communication within patient information panel
- Transmits commands from RFID system server with patient inform panel to devices on its own coverage area
- Works as a repeater unit

Service Management System



Patient Information System Server

- ✓ Linux Operating System
- ✓ Corporation and Staff Module
- ✓ Device and Device Health Module
- ✓ Entrusting Module
- ✓ Tracking Module
- ✓ Messaging Module
- ✓ System Settings Module
- ✓ Web-based reporting Module
- ✓ Security and Protocol Standards

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Active & Passive RFID Tracking System is a communication and automation system that provides full knowledge of inpatients', materials and devices location in hospital, measures inpatients' temprature and pulse values regularly and registers all location and measurement informations.

Biyosensor Patient Tracking Wrist With Position Speciality

- Bidirectional communication as encrypted and wireless
- Patient's temprature, pulse and location information, battery and signal strength is continuously measured and transmitted to server.
- Ability to detect if the patient is immobility or mobility
- Unique hardware ID
- Call and cancel keys
- Micro USB for programming purposes
- IP 65
- Maximum 40grams weight included Cord and battery
- Activation with server authorization
- Rechargeable

Position Enabled Storage-Device Tracking Active Tag

- Bidirectional communication as encrypted and wireless
- Location, battery status and signal strength is continuously measured and transmitted to server
- Ability to detect if Materials - Device is immobility or mobility
- Unique hardware ID
- Maximum 20grams weight Including battery

Storage-Device Tracking Passive Tag

- Frequency: 865 – 960 MHz (UHF)
- Memory: 512 bit
- Readout range: 0-1 mt
- Readable and writable tag

Passive Tag Reader – 4 Port

- Frequency: 860-960 Mhz
- Antenna input: 4 Port TNC
- Transmission Strength: Between ~10 and ~30 dBm
- Readable and writable tag

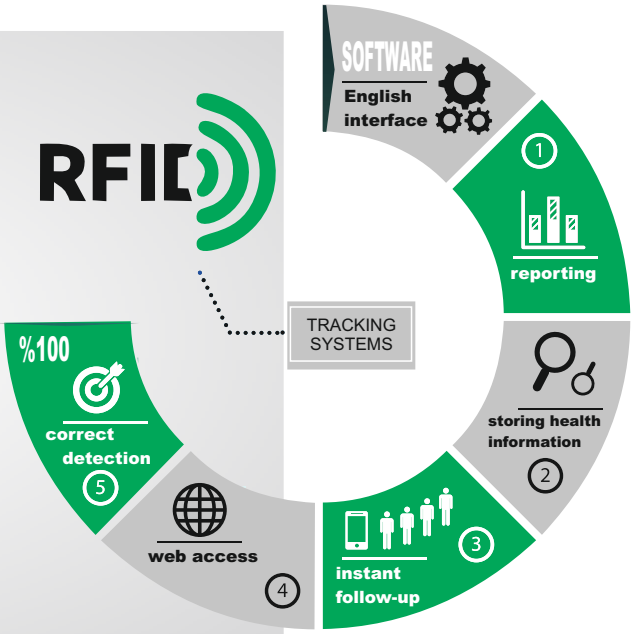
CALLVISION®

Location Browser

- Communication with RFID System Server via Ethernet
- Encrypted, wireless and bi-directional communication with patient tracking wrist
- In the area with a diameter of 10 m transmits all patient data packets from the patient tracking system to RFID System Server
- Ability to transmit commands from FRID system server to devices on its own coverage area.
- Works as a repeater unit

RFID System Server

- ✓ Linux Operating System
- ✓ Corporation and Staff Module
- ✓ Device and Device Health Module
- ✓ Entrusting Module
- ✓ Tracking Module
- ✓ Messaging Module
- ✓ System Settings Module
- ✓ Web-based reporting Module
- ✓ Security and Protocol Standards



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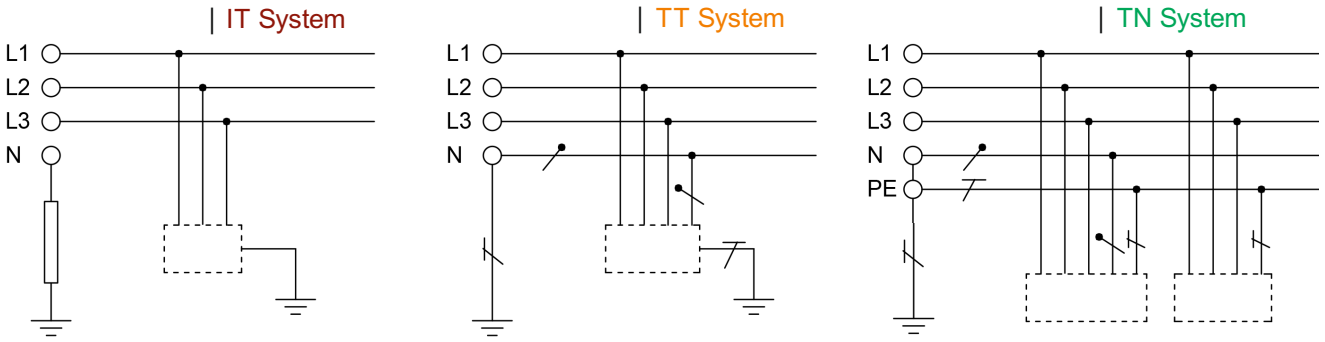
MEDICAL ISOLATED POWER SYSTEMS

OPERATING ROOM CONTROL PANEL

1. MEDICAL ISOLATED POWER SYSTEMS

Electrical power supply of the medical field, are selected according to the ambient electrical safety. TSE, IEC and IEE standards divide medical locations into 3 group as Group 0, Group 1, Group 2 according to patient safety. Group 2 including operation room, cardiac area, intensive care unit is most critical part for electricity sustainability and insulation. Electrical devices in group 2 save patients life. When there are any failure of the devices in this environment without harming the people in the medical location, devices are required to work without interruption For this reason, IT isolated power system is used in the Group 2 area.



1.1 EARTHING CONNECTION TYPES

Network installation regulations distinguishes three families of earthing arrangements, using the two- letter codes TN, TT, and IT.

The first letter indicates the connection between earth and the power-supply equipment (generator or transformer) :"T" — Direct connection of a point with earth,
"I" — No point is connected with earth (isolation), except perhaps via a high impedance.

The second letter indicates the connection between earth and the electrical device being supplied:
"T" — Direct connection of a point with earth,
"N" — Direct connection to neutral at the origin of installation, which is connected to the earth.

The next letter (If it is exist) indicates the regulations of neutral and protection conductor:
"S" — Provide protection function with separate conductor from neutral or earthed line conductor,
"C" — Combining neutral and protection safety on single conductor (PEN conductor).

All live parts are separated from the ground or from a point connected to ground via a high impedance. The exposed conductive parts of the electrical installation is grounded separately or combined or connected to the system ground.e separated from the ground or from a point connected to ground via a high impedance. The exposed conductive parts of the electrical installation is grounded separately or combined or connected to the system ground.



1.2 ISOLATED POWER SYSTEMS

At the IT systems used in group 2 rooms in medical environments, isolation transformer is used to separate the grounding of the neutral conductor and phase conductor. The grounding plug is connected to the equipotential bus. In isolated power systems, grounding are insulated against both lines. If a low resistance short circuit touches the ground or a leakage occurs, continue to the function of the circuit breaker and do not open and medical electrical equipment is continue to their functionality. Also because of grounding network is isolated as create a very high resistance to earth will pass current level will not harm even through touching people. In isolated power systems, insulation levels, transformer temperature and the load current is continuously monitored and a possible case of failure alarm signal is generated. The alarm signal is provided the necessary interventions by transmitted to related panels.

Environments that use of isolated power systems in hospitals

- Operation Rooms
- Surgery Preparation Room
- Intensice Care Units
- Anesthesia Room
- Cardiac Catheterization Rooms
- Angiographic Surgery Rooms
- Premature Baby Rooms

1.2.1. MEDICAL ISOLATED POWER PANELS

These panels are used in the power supply of places in medical locations within the scope of Group 2. Panels are comply with TS IEC 60364- 7-710 standarts. Typical medical isolated power panels are consist of an isolating transformer, insulation monitoring device detect insulation resistance, load current, transformer temperature, system, earth, CT connections, alarm indicator, equipotential bonding terminal. Electrical loads in Group 2 locations are protected against short circuit currents with fuses appropriate to IT system.

Technical Specifications	
Mark	CALLVISION
Type	MIPP / 1P-XX
Standarts	TSE-IEC 60364-7-710
Output Power	3,15 / 4 / 5 / 6,3 / 8 / 10 kVA
Supply Input	Single phase Mono phase Line
Rated Voltage	230 VAC
Frequency	50 / 60 Hz.
Isolation Level	3 kV / 1 min.
Input Protection	gL Fuse
Output Voltage	230 VAC
Output Protection	2 Pole Fuse
Watchdog	Isolalstion Resistance by LCD Screen
Alarm output	Insulation Fault, Overload, Over temperature
Functional Test	Advanced Insulation Fault
Enclosure Leakage Current	<0,5 mA
Isolation fault detection period	<1 s
Working Temperature	0°C / 50°C
Storage Temperature	-15°C / 70°C
Panel Dimensions	1500 x 500 x 500 mm or 1500 x 650 x 500 mm*
Ventilation	Fan ile / With Fan
ProtectionClass	IP 41
Colour	RAL 9003 veya / or RAL7035
Distibution Output	6 - 12 - 18 - 24... /**Pcs**

* Transfer system with contactor

1.2.2. MEDICAL ISOLATED POWER PANEL WITH TRANSFER UNIT

Medical isolated power panels with transfer unit; are used in the system is fed from two different power supply to provide power continuity of isolated power systems. In addition to isolated power panels, these panels have transfer unit provide switching between two paralel power source. Transfer unit follow two supply line and when voltage values exceed limit values, provide transfering between lines as automatically. In these way, interruption of energy is prevented and critical loads is always fed.

Technical Specifications	
Mark	CALLVISION
Type	MITPP / 1P-XX
Standards	TSE-IEC 60364-7-710
Output Power	3,15 / 4 / 5 / 6,3 / 8 / 10 kVA
Supply Input	Double Single Phase Line
Rated Voltage	230 VAC
Frequency	50 / 60 Hz.
Isolation Level	3 kV / 1 min.
Input Protection	gL Fuse
Output Voltage	230 VAC
Output Protection	2 Kutuplu Sigorta / 2 Pole Fuse
Watchdog	Isolation Resistance by LCD Screen
Alarm output	Insulation Fault, Overload, Overtemperature
Functional Test	Advanced Insulation Fault and Transfer Test
Enclosure Leakage Current	< 0,5 mA
Isolation fault detection period	< 1 s
Working Temperature	0°C / 50°C
Ventilation	Fan ile / with Fan
Protection Class	IP 41
Colour	RAL 9003 veya / or RAL 7035
Transfer Time	< 5 ms.
Response Range	50 - 500 k Ω
Distribution Output	6 - 12 -18 - 24... / Pcs
Panel Dimensions	1700 x 500 x 500 veya / or 1500 x 650 x 500 mm*

* Transfer system with contactor

1.2.3. MEDICAL ISOLATED POWER PANELS WITH TRANSFER UNIT AND FAULT DETECTION SYSTEM

Medical isolated power panels with transfer unit and insulation fault detection device have also test signal generator, insulation fault evaluators and toroidal transformer in apart from other isolated panels. When any fault exist, this fault is detected by insulation monitoring device and test signal generator produce a test signal, after that fault detected according to response of system to this signal. Insulation fault evaluator send signal to alarm monitoring devices.

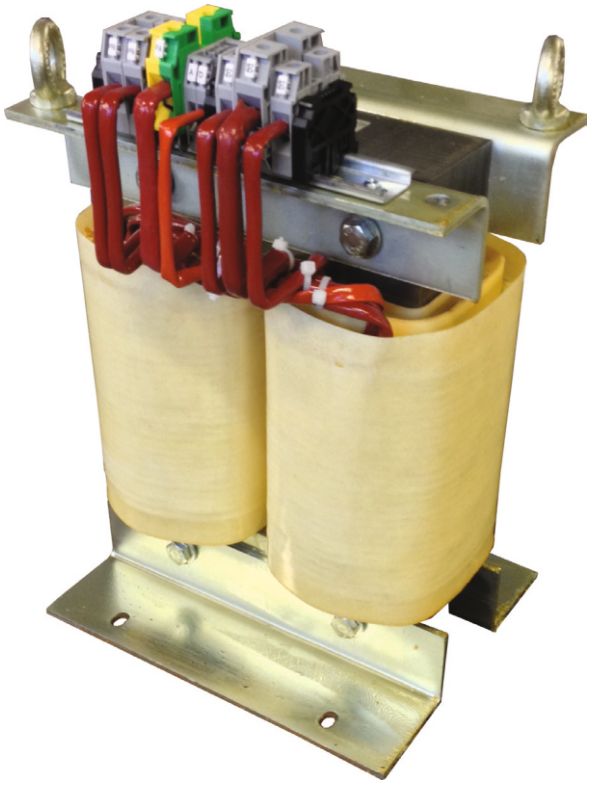
Technical Specifications	
Mark	CALLVISION
Type	MITFPP / 1P-XX
Standards	TSE-IEC 60364-7-710
Output Power	3,15 / 4 / 5 / 6,3 / 8 / 10 kVA
Supply Input	Double Single Phase Line
Rated Line Voltage	230 VAC
Frequency	50 / 60 Hz.
Isolation Level	3 kV / 1 min.
Input Protection	gL Fuse
Output Voltage	230 VAC
Output Protection	2 Pole Fuse
Watchdog	Isolation Resistance by LCD Screen
Alarm output	Insulation Fault, Overload, Overtemperature
Functional Test	Advanced Insulation Fault and Transfer Test
Enclosure Leakage Current	< 0,5 mA
Isolation fault detection period	< 1 s
Working Temperature	0°C / 50°C
Storage Temperature	-15°C / 70°C
Panel Dimensions	1700 x 500 x 500 or 1500 x 650 x 500 mm*
Ventilation	with Fan
Protection Class	IP 41
Colour	RAL 9003 veya / or RAL 7035
Transfer Time	< 5 ms.
Response Range	50 - 500 k Ω
Distribution Output	6 - 12 - 18 - 24... / Pcs

* Transfer system with contactor

1.3. AUXILIARY DEVICES

1.3.1. MEDICAL ISOLATING TRANSFORMER

Medical isolating transformer is produced comply with IEC 61558-2-15 standards for supplying critical loads. With a static screen placed between the primary and secondary windings is isolated from the fixed-angle transformer core. With built-in PTC thermistor, temperature measurement can be performed.



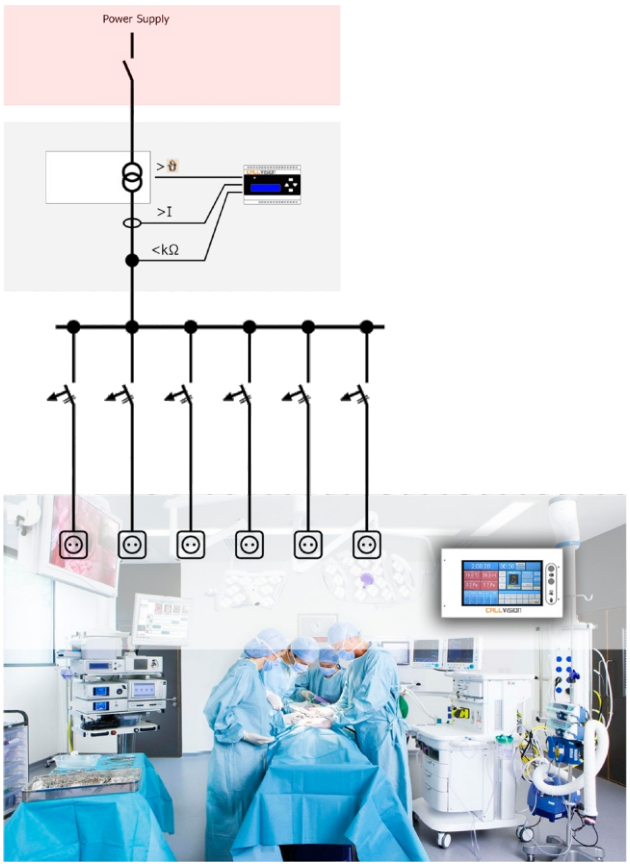
Medical Transformer Technical Specs EN 61558-2-15	
Power	10 kVA
Frequency	50 Hz
Input Voltage	230 V
Output Voltage	230 V
Instantaneous Input Current Imax / Irms ≤8	7,39 A
Leakage Current	≤ 10 µA
No Load Input Current	% 2,2
No Load Output Voltage	238,6 V
Regulation	% 4,64
Maximum Temperature Rise	59,4 ˚C
Protection Class	IP00
Insulation Class	F
Ventilation	ANAN
Standards	EN 61558-2-15
Working Temperature	-10°C + 50°C
Storage Temperature	-15°C / 70°C

Mechanical Data							
Monophase Medical Transformer							
Model No	**A (mm)**	**B (mm)**	**C (mm)**	**D (mm)**	**F (mm)**	**H (mm)**	**Weight (kg)**
MTA/1P-3,15	250	195	140	153	10 x 15	365	40
MTA/1P-4	280	200	170	156	10 x 15	415	45
MTA/1P-5	280	207	170	163	10 x 15	415	47
MTA/1P - 6,3	280	220	170	176	10 x 15	415	53
MTA / 1P - 8	280	225	170	181	10 x 15	415	57
MTA / 1P - 10	320	253	200	213	10 x 15	465	76

1.3.2. ISOLATION MONITORING

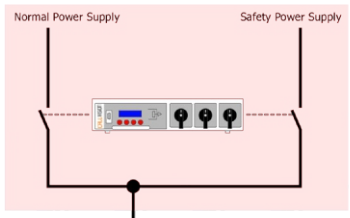
Isolation monitoring device continuously monitoring isolation resistance level and detect any possible insulation faults. Device is set to alarm when insulation of whole network is below than set value. Moreover, device monitor temperature of transformer and load current. If this values exceed limits, it generate alarm signal.

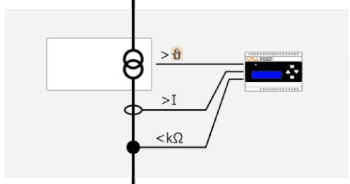
Technical Specifications	
Mark	CALLVISION
Type	IM710
Standards	TSE-IEC 60364-7-710 TS EN 61557 - 8
Rated Impulse Withstand Voltage	4 kV
Supply Voltage	24 VAC
Operating Voltage	16 - 35 VAC
Frequency	50 / 60 Hz.
Measurent Range	1 - 500 K Ω
Test Current	50 µA
Test Voltage	24 VDC
Internal Impedance	1.8 MOhm
Impedance	800 kOhm
Communication Interface	RS 485 (BMS protocol)
Load Current Range	0-10A / 0-100A
Product Dimensions	126 x 91 x 50 mm
Working Temperature	-10°C / 50°C
Storage Temperature	-15°C / 70°C



1.3.3. TRANSFER UNIT

Transfer unit is device supply proper feeding load by active line when there is any problem at supplied power lines. Device make transferring less than ¼ period duration.



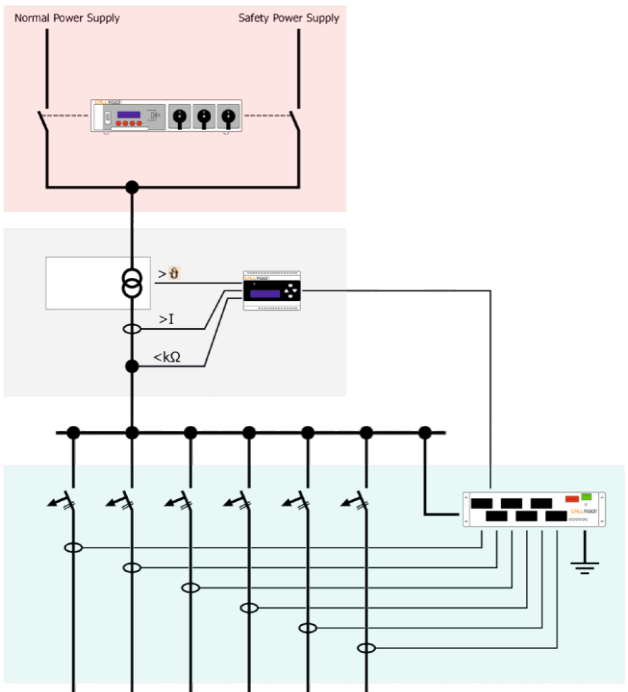


Technical Specifications	
Mark	CALLVISION
Type	MTU/1P - XX
Standards	TS IEC 60364-7-710
Transfer time	< 5 ms
Rated Current Range	15A | 20A | 25A | 32A | 40A | 50A
Supply Input	230 VAC
Efficiency	96%
Frequency	50 / 60 Hz.
Input Protection	Class B
Alarm output	1pcs contact
Working Temperature	0°C / 50°C
Storage Temperature	-15°C / 70°C
Product Dimensions	320 x 120 x 350 mm
Ventilation	Naturel Cooling
Protection Class	IP 21
Colour	RAL 9003 veya / or RAL 7035

1.3.4. INSULATION FAULT DETECTION SYSTEM

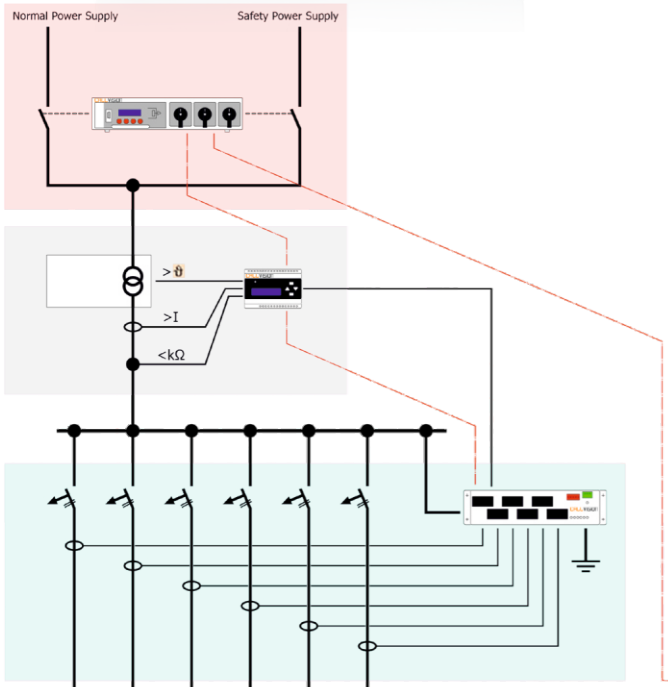
Insulation fault detection device with integrated current transformers is used for detecting insulation faults in IT systems. Insulation fault detection system consists of test device, control and indicator device, fault evaluator and current transformer. Information exchange between devices takes place via a two wire connection.

Technical Specifications	
Mark	CALLVISION
Type	IFDS 710
Standards	TS EN 61557-8 TS IEC 60364-7-710
Output Power	< 10W
Supply Input	16 - 35 VAC
Rated Voltage	24 VAC
Frequency	50 / 60 Hz.
Isolation Level	4 kV
Input Protection	Class B
Alarm output	1 pcs Contact
Enclosure Leakage Current	< 50 µA
Isolation fault detection period	< 300 msn.
Working Temperature	0°C / 50°C
Storage Temperature	-15°C / 70°C
Product Dimensions	254 x 60 x 25,5 mm
Ventilation	Natural Cooling
Protection Class	IP 21
Internal Resistance	500 - 800 Ω
Max Input Current	1 A
Min. Input Current	125 µA
Turn Ratio	8000 / 1



1.3.5. LOCAL ALARM PANEL

Local alarm panel duplicates fault, alarm and operating messages of monitoring devices in accordance with TS IEC 60364-7-710 standard. By panel, authorized technical staff can follow alarm messages.

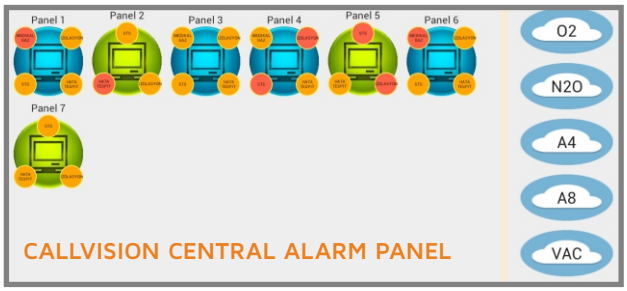


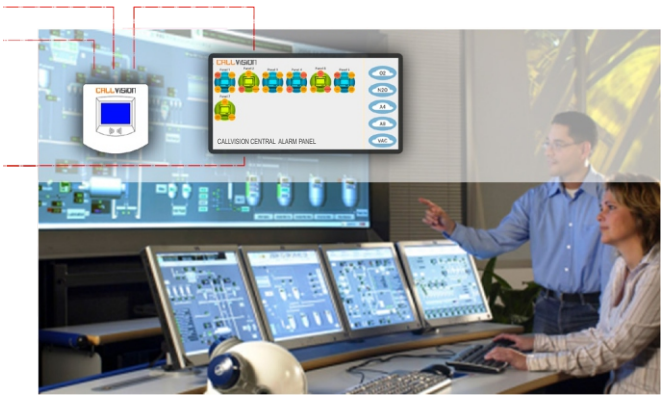
Technical Specifications	
Mark	CALLVISION
Type	AP710
Standards	TS IEC 60364-7-710
Frequency	50 / 60 Hz.
Watchdog	Line Base Fault Monitoring
Alarm output	12 Digital Contact Alarm
Working Temperature	0°C / 50°C
Storage Temperature	-10°C / 50°C
Monitor	4.3" Touchscreen LCD
Communication Interface	RS-485 (BMS Protocol)
Alarms	Insulation Resistance Load Current Rate Insulation Fault Overload Current Transformator Overtemp. Device Failure
Supply Input	24 V
Product Dimensions	220 x 190 mm

1.3.6. CENTRAL ALARM PANEL

Central alarm panel is the device enable to remote monitoring all fault, alarm and operating messages of medical system in only a screen in accordance with TS IEC 60364-7-710 standarts. By this panel, can be monitored fault messages as like UPS fault room temperature, air condition fault and oxygen, vacuum, dry air, nitrous oxide, pressurized air, nitrogen values of medical gas systems in addition to all specifications of alarm indicator panel.

Technical Specifications	
Mark	CALLVISION
Type	CAP710
Standards	TS IEC 60364-7-710, EN60950-1, EN62311, EN55022, EN61000-3-3, EN61000-3-2, EN55024, EN55022
Frequency	50 / 60 Hz.
Working Temperature	0°C / 50°C
Storage Temperature	-10°C / 50°C
Monitor	Touchscreen LCD
Communication Interface	RS-485 (BMS Protocol)
Alarms	Insulation Resistance Transformer Overload Current Transformator Overtemp. Oxygen Dry Air Pressurized Air Vacuum Nitrous Oxide Nitrogen UPS Fault Air Condition Fault Room Temperature
Supply Input	24 VAC





2. OPERATING ROOM CONTROL PANEL

Touch screen operating room control panel offers comfort for patient and medical personel in order to operate in operating room and also enable to control environment conditions and medical devices. Surgical team can control medical devices easily and communicate with other rooms by using hands-free phone with high voice quality. Operating room panel consist of one smart electronic card and one touch screen Android operating system.

Technical Specifications	
Mark	CALLVISION
Type	ORP 710
Panel Material	Stainless Steel(304,2m)
Demand Power	185W (max)
Operating Voltage	100-240 VAC
Frequency	50 / 60Hz
Monitor	Resistive Touchscreen
Working Temperature	0°C / 40°C
Storage Temperature	-20°C / 60°C
Analogue Output	8 pcs Automation(0-10V), 5 pcs Dimmer, 2 pcs Air Conditioner, 2 pcs Reserve
Analogue Input	4 pcs Air Conditioner
Digital Output	8 pcs Automation
Digital Input	9 pcs Medical Gas
Communication Ports	1 pcs Leakage current (RS485), 2 pcs Reserve (RS485), 1 pcs Ethernet, 1 pcs telephone (RJ11)
Protection Class	IP65
Colour	Metallic Grey or Black
Product Dimensions	740 x 432 mm
Displayed Parameters	Temp., Humidity, Room Differential Pressure, Filter Contamination Level, Gas Alarm Displayers
Standards	TS EN 55022, TS EN 55024

GENERAL SPECIFICATIONS

- Microprocessor controlled
- Stainless steel front sheet
- Touchscreen
- Four On/Off switch controlling four ligthing armature group separately
- Surgical operating light On/Off switch
- Negatoscope control switch
- Light indicating when room is in use
- Full/Half flow control switch
- Damper On/Off switch
- VAV switch
- UV lamb control switch
- Gas extractor switch
- 1 pcs reserve switch
- 1 pcs reserve RS485 port

0-100V analogue measurement outputs of temperature, humidity, room differential pressure,filter contamination level are received, transmitting to smart panel and assign output ports.

Data transmitting to automation by 8 pcs 10 bit analogue 0-10V output and 8 pcs digital I/O
Music channel selection between 2 channel, 3 watt hi-fi sound amplifier, music speaker, %100 voice level adjustment

Hands-free phone with digital acoustic control allow you to answer and make call, %100 voice level control %100 dimmer function for 5 different lamb.

Descriptions

1. Clock
2. Chronometer
3. Temperature Display
4. Humidity Display
5. Pressure Display
6. Hepa Filter Display
7. Control Switches
8. Music Menu
9. Telephone Menu
10. Leakage Current Display
11. Medical Gas Level Display
12. Control Switch & Settings

NOTE

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