NURSE CALL SYSTEMS

V5

NURSE CALL SYSTEMS

Introduction

FEB has been active in the nurse call systems market for more than 20 years: over time our offer has evolved from electromechanical systems, through digital bus systems, up to the most modern wireless technologies. FEB systems adapt to installations of very different sizes and with very varied needs, but the key points of quality, simplicity of installation and use and reliability always remain fixed.
By choosing a FEB calling system you know that you can count on the experience of an ISO 9001 certified Italian company.

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FEB Care

G99


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care

FEB® care

FEB CARE is a brand new wireless nurse call system based on an Android display unit.

It has been specifically designed to be completely flexible, easy to install, simple to program, but above all intuitive to use. Although installation is simple, CARE has been designed with multiple features that make it a complete system, suitable for every need for prevention, control and quality of life for the end users: it follows the guidelines of safety standards such as UL (USA), EN (Europe) and HTM (UK).

The system is fully supervised to provide a solution reliable and long-lasting. Using the latest Lo.Ra technology, the wireless range can reach distances of over 1 km.
The touchscreen tablet, the real brain of the system, shows a list of active alarms at a glance and can be expanded with other display monitors.

CARE uses color (Red/Amber/Yellow) to indicate the priority (importance) of an alarm. All calls are
displayed in order of priority to highlight to operators the severity of an alarm and the response required.

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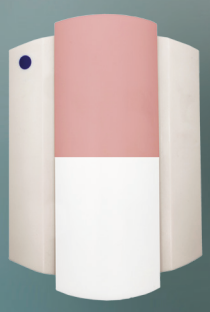

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TABLET AND DISPLAYS

Art. 3601/T

Tablet-call system control unit + antenna

Industrial level tablet with FEB Care software installed for managing a wireless call system. The software has an interface optimized for ease of use and the navigation is similar to what is done with a smartphone. Calls are shown in order of priority with different colors depending on the severity. The system includes an automatic log of all calls and response times that can be viewed and downloaded to an external device.

The tablet has a 10" screen, IP65 protection rating and an 8000 mAh battery. On the back there are VESA 200x100 mm fixing holes.

Screen size: 10"
Battery: 8000mAh
IP protection rating: 65
Power supply: 5V-2A
Mounting: docking station / VESA 200x100 mm

Art. 3601/T

Art. 3601/D

Docking station for tablet (optional)

Docking station for the FEB Care tablet: allows you to charge it when connected and provides 3 additional USB sockets, for example for connecting with display repeaters.

Number of USB ports: 3

Art. 3601/D

Art. 3601/A

FEB Care antenna

Antenna for connecting the 3601/T tablet or the 3601/A touch screen unit with the rest of a FEB Care system.

Art. 3601/A

Art. 3601/R

Touch screen or repeater display unit

Android-based control device with FEB Care software pre-installed: connected to the antenna it can control a touch screen to function as the main control unit of the system, instead of the tablet. Alternatively it can be used with the antenna and connected to a normal screen to function as a repeater of the system calls.

Main control unit or repeater functionality. HDMI output for connection to an external monitor.
3.5 mm audio output for connection to an external speaker.

Power supply: 5V – 2A
Dimensions: 95 x 65 x 15mm
Weight: 110g
Operating temperature: 5 – 40°C
Relative humidity: <90%

Art. 3601/R

Art. 3601/AR

Antenna for main display repeaters

Antenna for connecting to the system a module 3601/R used as a repeater. Two units of this antenna are required to connect a repeater: a transmitting antenna is connected to a USB port on the system's main control unit and a second, receiving antenna is connected to a USB port on the 3601/R.
In the case of multiple repeaters, only one transmission antenna is required and as many receiving antennas as there are repeaters.

Art. 3601/AR

CALL POINTS

Art. 3602/M

Magnetic key

Magnetic key for resetting alarms on the modules 3602/P, 3603 and 3604.

Art. 3602/M

Art. 3602/L

Bedside call point

Wireless bedside call point. The device has a call button, a reset button, an emergency call switch and a reassurance LED that lights up when a call is made.

A cable with an attachment hook allows it to be attached to a bed for example and comes with a wall mount for storage when not in use.

The device signals when the batteries are almost empty.

Frequency: 433.92MHz
Maximum distance: 100m in open field
Power supply: 2 AAA alkaline batteries
Dimensions: 115 x 42 x 25mm
Material: ABS
Weight: 85g (without batteries)
Operating temperature: 5°C - 40°C
Relative humidity: <90%

Art. 3602/L

Art. 3602/S

Room call point

Wireless wall call point. The device has a call button, a reset button and an acoustic signal and a reassurance LED that light up when a call is made.

The device has two screw holes for solid wall mounting and an RJ10 port for connecting to a bed extension.

The device signals when the batteries are almost empty.

Frequency: 433MHz
Maximum distance: 70m in open field
Power supply: 2 CR2477 lithium-ion batteries
Approximate battery life: ~3 years
Dimensions: 85 x 85 x 60mm
Material: ABS
Weight: 130g
Operating temperature: 5°C - 40°C
Relative humidity: <95%

Art. 3602/S

Art. 3602/PL

Bedside extension for room call point

Bed extension for the room call point. This device has a call button and a red reassurance LED that lights up when a call is made. It connects to the wall point with a cable with RJ10 connector and a second removable connector prevents breakage if it is torn. A wall mount is included in the package.

Dimensions: 120 x 50 x 25 mm (device only)
Material: ABS
Weight: 160g (with cable and wall mount)
Operating temperature: 5°C - 40°C
Relative humidity: <85%

Art. 3602/PL

Art. 3602/B

Bathroom call point

Wireless bathroom call point. The device has a call button and cord for calls from the ground with a 1.5 m long cable. It includes a reset command and an acoustic signal with reassurance LEDs that light up when a call is made.

The device has two screw holes for solid wall mounting and has an IP65 protection rating for use in a shower, for example. The device signals when the batteries are almost empty.

IP protection rating: IP65
Frequency: 433MHz
Maximum distance: 70m in open field
Power supply: 2 CR2477 lithium-ion batteries
Approximate battery life: ~3 years
Dimensions: 85 x 85 x 60mm
Material: ABS
Weight: 130g
Operating temperature: 5°C - 40°C
Relative humidity: <95%

Art. 3602/B

Art. 3602/P

Wrist call point

Individual call point, to be worn on the wrist or hung around the neck. The patient can use it to activate a call on the FEB Care control unit and the call can be personalized with the patient's name. The reset can be done via the FEB Care magnetic key and has an IP65 waterproof level.

Frequency: 433.92MHz
Maximum distance: 50 m in open field
Power supply: 3V, CR2450 lithium-ion battery
Battery life: 1-2 years
Dimensions: 46 x 34 x 13 mm
Material: ABS + PC
Weight: 25g
Operating temperature: 5 – 40°C
Relative humidity <100%

Art. 3602/P

HALLWAY LIGHTS AND REPEATERS

Art. 3603

Hallway light/Room collector unit

This module is a luminous acoustic signalling device with red LEDs and white LEDs and allows you to visually distinguish between room calls and bathroom calls. It also works as a signal repeater for all the call devices which are connected to it and forwards their signal to the FEB Care control unit. It is designed to be powered by batteries or an external power supply. It is supplied with a wall mounting bracket.

Art. 3603

"Frequency: 433MHz, 435MHz
Maximum distance: 50m (433MHz), 1000m (435MHz) in open field.
Power supply: 12 VDC – 800 mA, or 6 type C alkaline batteries
Battery life: 2-3 years on standby
Dimensions: 160 x 110 x 60 mm
Material: ABS
Weight: 300g (without batteries)
Operating temperature: 5 – 40°C
Relative humidity: <85%

Art. 3603/R

Hallway repeaters

FEB Care outdoor door signal repeater, it forwards the signal to the main system control unit. It does not provide audible or visual alarm when a call is forwarded. It supports both battery and 12VDC power supply, but battery use is recommended only as a backup solution.

Frequency: 435MHz
Maximum distance: 1000m in open field
Power supply: 12 VDC – 800 mA, or 6 type C alkaline batteries
Battery life: 2-3 years on standby
Dimensions: 160 x 110 x 60 mm
Material: ABS
Weight: 300g (without batteries)
Operating temperature: 5 – 40°C
Relative humidity: <85%

Art. 3603/R

Art. 3603/A

Power supply for hallway module

12VDC – 800mA power supply for items 3603 and 3603/R

Output 12VDC – 800mA

Art. 3603/A

DOOR MONITOR

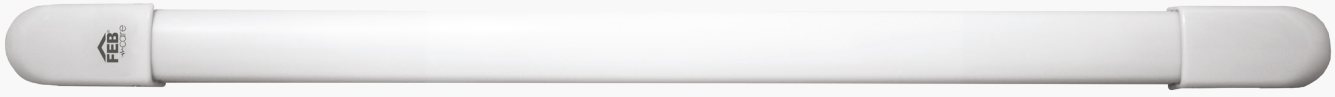
Art. 3604

Door control

This door control system allows you to activate an alarm when an unauthorized person approaches and opens the monitored door. It includes several advanced features, such as:
- The possibility of preventively closing a door equipped with an electric lock when an unauthorized person is near the door;
- Sound an alarm when a door remains open for too long;
- Allows nurses to escort a patient through the door without triggering an alarm;
- Special alarm mode to warn every time the door is opened, even without having detected unauthorized persons;
- Relay output for integration with an external or additional alarm;
- Possibility of setting operation as master or slave, to cover even very large doors with two sensors.

The door control module 3604 can work alone or as part of a FEB Care call system.
The status LEDs present in the device allow you to easily identify the alarm, pre-alarm or reset status of the gate control.
The system works in combination with the wrist transmitter, which is worn by patients who cannot leave without authorization, the magnetic reset key and the remote reset for the door control.

Frequencies: 20kHz, 433MHz
Power supply: 12VDC – 2A
Maximum pre-alarm distance: 3m
Maximum alarm distance: 3m
Relay for electric lock: max 2A-24V
External alarm relay: max 2A-24V



Art. 3604

Art. 3604/T

Wrist transmitter for door control

Wrist transmitter worn by patients: sends a signal to the door control when the wearer approaches. It runs on batteries, with a lifespan of approximately 1 year. Supplied with a faux leather strap, it can also be used with tear-proof hospital bracelets. When the batteries are low, the transmitter sends a warning message when it is within the detection range of the access control.

Power supply: 1 CR2450 lithium-ion battery
Frequencies: 924.5 MHz, 868.7 MHz

Art. 3604/T

Art. 3604/R

Remote reset for door control

This transmitter allows you to bypass the access control alarm, when a nurse needs to take out a patient who is wearing the alarm transmitter. In addition, this device allows you to remotely reset the gate control alarm, without having to go to the door, as when using the magnetic key.

Power supply: 1 CR2477 lithium-ion battery
Frequencies: 924.5 MHz, 868.7 MHz

Art. 3604/R

Art. 3604/A

Power supply for door control

12VDC – 3A power supply for item 3604

Output 12VDC – 3A

Art. 3604/A

FALL PREVENTION

Art. 3605/L

Bed sensor

Under mattress sensor to trigger an alert when the patient gets out of bed. It works under most mattresses. It works in conjunction with the receiver and can be connected to the FEB Care wireless calling system, to the G99 wired system and can also be used as an independent monitoring kit. The lifespan of this product is 2 years, after which it must be replaced.

Material: PVC and PET
Dimensions: 760 x 250 mm
Net weight: 635g
Operating temperature: 5 – 40°C
Operating weight: 30 – 200 kg
Recommended cleaning: 1:100 solution of household bleach (5.25-6.15% sodium hypochlorite)

Art. 3605/L

Art. 3605/R

Receiver for 3 bed sensors

Receiver for under-mattress sensors: allows you to manage up to 3 independent sensors. Via 3 status LEDs it lets you to monitor when patients are lying in bed and incorporates an acoustic alarm to know when a patient has gotten up. This module can be used alone, or it can be connected to the FEB Care wireless system or to a room concentrator of the G99 wired system. It is possible to have both a battery power supply and a fixed 6V power supply. The alarm volume is adjustable and it is also possible to set the device with a time delay for those patients who have limited mobility and can, for example, go to the bathroom independently. There is also a pause button for when the patient's bed needs to be made.

"Frequencies: 434.4 MHz
Maximum distance: 8m in open field
Power supply: 6VDC – 300mA or 3 AA alkaline batteries
Battery life: 6 months (estimated)
Dimensions: 120 x 83 x 35 mm
Material: ABS
Net weight: 210g
Operating temperature: 5 – 40°C
Relative humidity: <85%

Art. 3605/R

Art. 3605/A

Power supply for receiver for 3 bed sensors

12VDC – 3A power supply for item 3605

Output 12VDC – 3A

Art. 3605/A

G99

The Guardian 99 system allows control over installation with up to 99 calls. It is made by a master unit with a display (2 digits both for flush or wall mount, or 13 digits for wall mount only) and a number of room interfaces depending on the number of calls to be controlled.

The key feature ot this new calling system is the abilty of self-programming the network. The master unit recognizes how many units are present in the network and gives them a progressive numbering, without the need ot individuai micro-coding and without the need for laborious programming, neither initial nor for expansion ot the network. The whole system is powered by a single transformer 12VAC.

It is designed to be connected to a large additional display and to additional light or sound signals. The connections are made by a cable with 4 wires (2 poles for 12V power, 2 poles for data).

Art. 1600/GMATRIX/N

Display da parete

Master / slave type alphanumeric hallway display unit, for displaying and natifying calls, to be combined with the G99 range. The container is made of metal, white powder coated and is equipped with the accessories for wall or ceiling mounting. The connection to the system takes place via a Bus system consisting of two conductors for the data line (A-B) and two conductors for the power supply line which must be common to the whole system and dimensioned for maximum absorption. The unit can be configured in the system both as a main panel (master) and as a repeater panel (slave). The alphanumeric display system makes it possible to create:

- Call, via button, with permanent optical signal and intermittent acoustic signal.
- Display of the corresponding message on the "Display Panel" placed in a manned location.
- Storage of simultaneous cals and display of related messages on the display panel - Self-programming of the entire system.
- Possibility of repeating the calls on other panels of the G99 series
- Auxiliary contact far driving other signaling devices.
- System wiring with Bus system (2 + 2 wires).
- Possibility of making systems up to 99 calls using a single display.
- Adjustment and display of the current time.
- Possibility of silencing the acoustic signal.
- Customization of the call lzabels by programming with dip-switches or with an Android device.

Technical features

- Power supply voltage: 12Vac
- Absorption current: 400mA
- Max number of characters: 10
- Character height: 35mm
- Visibility: Over 10mt
- Acoustic alarm intensity: 40dB at 30cm
- Output contact: Type N/O 1A - 250V
- Viewing angle: 150°
- Operating temperature: 0°C + 40 °C
- Container in steel sheet painted with white epoxy powders.
- Dimensions: 330x100x55 mm Weight: 1.5Kg
- Type of fixing: Wall or ceiling with the supplied bracket

BOX: 1 Pz

art. 1600/GMATRIX/N

Art. 1600/G99/N

Guardian 99 digital with 4 wires

- Permanent optical and acoustic signal generated by the calls.
- Calling number on the display.
- Contemporary calls are stored, then displaied sequentially in the display, after reset of the previous call.
- Self-programming of the network.
- Possibility of repetition of calls on other repeaters display.
- Auxiliary contact on each interface unit, to drive other auxiliary devices.
- Wiring of the system with a bus system linked by cable with 2 pairs of wires.
- 99 calls are displaied in each master unit.
- Housing of the master units withe display and of the room interfaces in "503" wall boxes.

art. 1600/G99/N

Dimensions: 123,5 x 84,0 x P 37,0 mm

Power supply 12VAC-5W

BOX: 1 Pz

Art. 1600/BIG/N

Large display for 99 - wall fixed

- Height of digits 135 mm
- Angle of view 150°
- Power supply I2VAC, 6W
- Size 275x240x55 mm
- Weight 1 kg, abs cabinet

art. 1600/BIG/N

It can be used both as a main unit, or as a repeater in a call system, together with 1600/G99. Max. 99 calls, optical and acoustical alarm, automatic assignment of numbers to calling rooms, serial connection with 4 wires.

Dimensions: 278,0 x 240,0 x P 74,0 mm

BOX: 1 Pz

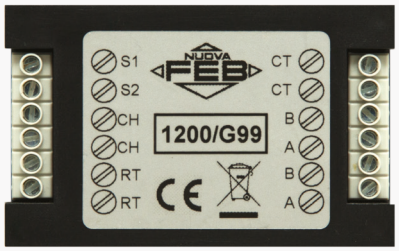
Art. 1200/G99/N

Room interface for G99

- Power supply 12VAC
- Power absorption max 1W
- Size: 80,0 x 50,0 x 20,0 mm
- Signal trasmission delay: 0,02 sec.

Interface unit for G99 call system. It generates a specific code, recognized by the system. It transmist the calling and reset signals to the central unit. It can drive, by a clean NO contact, external additional devices for local signalling: warning lamp, buzzer, bells, art 1200/2, with a total power of 2A. For its small size, il can be housed in a wall box or in the head of the bed.

Dimensions: 80,0 x 51,0 x P 23,0 mm



art. 1200/G99/N

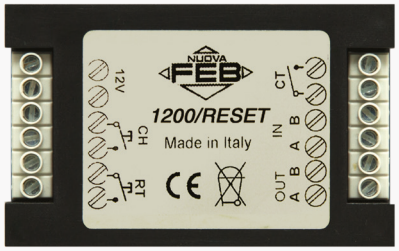
BOX: 1 Pz

Art. 1200/RESET/N

General reset unit for G99

- Power supply 12VAC
- Power absorption max 1W
- Size: 80,0 x 50,0 x 20,0 mm
- Signal trasmission delay: 0,02 sec.

Interface unit tor G99 call system. It generates a reset signal valid for all the calls received by the system. It can be used alone or in addition to the room reset generated by the room interfaces, but it doesn't the outdoor signals. For its small size, il can be housed in a wall box or in the head of the bed.



art. 1200/RESET/N

BOX: 1 Pz

CALCULATION OF SIGNAL DELAY

The data flow between concentrators and main unit is delaied in proportion to the number of crossed units. The maximum delay is between the last concentrator and the main unit, equal to R=Nx0,02 sec.
Example: wiring of 50 rooms R=50x0,02=1,0 sec.

CABLE CROSS SECTION CALCULATION

- Signal: up to 50 m use a simple phone cable with area 0,30/0,50 mm2; over 50 m, shielded phone cable with area 0,50 mm2.
- Power supply: area calculated with practical formula S=N x 0,015, where S is the area in mm2 and N is the number of concentrators.

Example: wiring of 50 rooms S=50x0,015=0, 75 mm2.

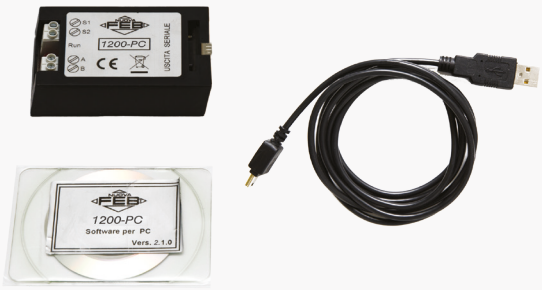
Art. 1200/PC/N

Interface for connection of G99 to a PC

- Free text description of coming calls
- Connection by USB
- Software inluded on cd
- It needs Windows 7
- Power supply 12VAC, 1W
- Size 85 x 50 x 20 mm (for junction box)

Shows on the PC screen the calls coming to 1600/G99

Dimensions: 80,0 x 51,0 x P 23,0 mm



art. 1200/PC/N

BOX: 1 Pz

Art. 1200/CTR/N

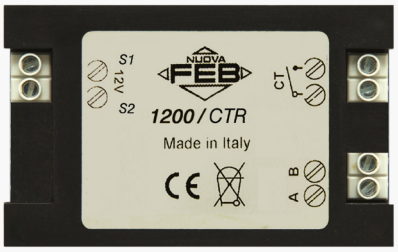
Interface to drive additional signal for G99 unit

- Max. Contact current 2A
- Power supply 12VAC, 1W
- Size 85x50x20 mm (for junction box)

Each detected call closes the n/o contact till the reset. It can drive additional belss, warning lights, buzzers.

Dimensions: 80,0 x 51,0 x P 23,0 mm

BOX: 1 Pz



art. 1200/CTR/N

Art. 1163/G99

Din bar/wall mount transformer for G99 - 4 DIN modules

The power absorbed by the system, given in VA, is calculated by the practical formula P=Nx2, where n is the number of concentrators. Example: wiring of 50 rooms P=50x2=100VA. Depending on the avaible soace, to get the calculated total power, it is possible both the use of more transformers with secundary wiring in parallel both one single transformer.

230V/12V - 63VA - 5.2A - 50/60 Hz

Dimensions: 72,0 x 115,0 x P 61,0 mm

BOX: 1 Pz

art. 1163/G99

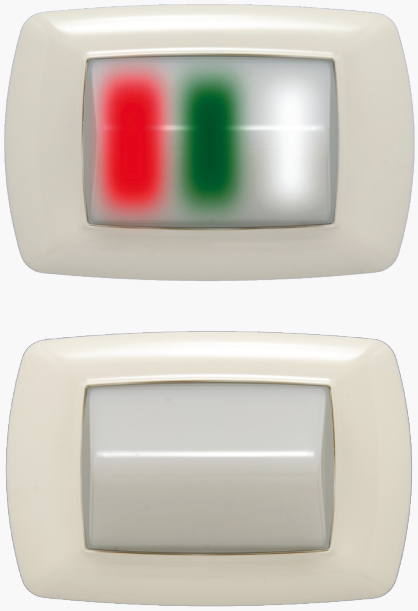
Art. 1200/LC3/N

Acoustic and luminous alarm device, intergrated with room interface for systems G99

Power supply: 12 VAC by safety transformer
Power consumption:2W
Light signal: high power LED, red, green, white coloured
Sound signal: n.1 piezo buzzer with power 60 dB at 1m.

12V AC

BOX: 1 Pz



art. 1200/LC3/N

The alarm device emits an intermittent sound and one out of three available coloured lights. The three different colours can indentify different alarm situations. This device includes inside a room interface that manages all the room signals and sends them by the bus to the call system art. 1600/G99 (see enclosed diagram).

WORKING PRINCIPLE

BUTTON OF ROOM CALL:
It sends the alarm to the main system and lights on the red LED in calling device.

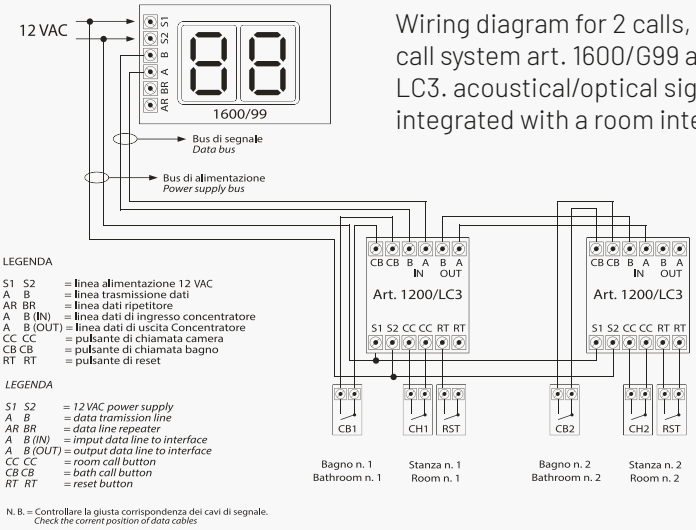
BUTTON OF BATH CALL:
It sends the alarm to the main system and lights on the white LED in the calling device.

BUTTON OF RESET:
1st push: it resets the calling device, switches off the red and the white LED lights and switches on the green LED, of nurse present in the room.

2nd push: it switches of the green LED and resets the main calling system. The call push button is always active.

The reset push button is activated only by the call push button.

This device is designed according to the DIN VDE 0834-1 norm.



Wiring diagram for 2 calls, between the digital call system art. 1600/G99 and the art. 1200/ LC3. acoustical/optical signalling device, integrated with a room interface.

GUARDIAN WITH 2 WIRES

The Guardian call system lets you realize plants with up to 15 calls using 2 wires only. Moreover Guardian lets you personalize according to needs the number of calls, increasing the total number up to 90 calls.

KEY FEATURES
- Call made by a push-button with permanent sound/ light signals.
- Visualization on the display of the calling number.
- Recording of contemporory waiting calls and visualization of them by LEDs.
- Survey of the waiting calls after the reset of the previous call.
- General reset from the call board and single reset from each calling room with art. 1200/3C.
- Auxiliary contact on the main call board 8A.
- Backup battery inside the call board with 30' autonomy.

ALL PACKS INCLUDE
The pack includes the central control unit and the micro codes needed to realize a 15 calls plant.

Art. 1600/15

Guardian 15 calls for DIN bar

TECHNICAL SPECIFICATIONS
- Minimum wires diameter 0,6mm2
- Voltage supply 230V AC.
- Power consumption 10W
- 6 DIN modules
- Autonomy without power supply: 30 minutes
- Body made in self extinguishing polycarbonate V2

230V AC

BOX: 1 Pz

art. 1600/15

Art. 1600/G15

Guardian digital system 1-15 calls flush mount wall box 503

TECHNICAL SPECIFICATIONS

- Minimum wires diameter 0,6mm2
- Voltage supply 12V AC.
- Power consumption 2W
- To be mounted in 503 wall box
- Permanent memory of calls
- Body made in self extinguishing PC V2

BUZZER INCLUDED

12V AC

BOX: 1 Pz

art. 1600/G15

Art. 1600/BIG15M

Guardian digital system 1-15 calls wall mount

TECHNICAL SPECIFICATIONS
- Minimum wires diameter 0,6mm2
- Voltage supply 12V AC.
- Power consumption 6W.
- Fixed to the wall
- Permanent memory of calls
- Body made in ABS
- Dimensions 275x240x55mm
- Digits high: 135 mm
- Weight: 1kg
- G15-IMB interface included
- Intermittent buzzer oncluded
- Repeater for 1600/BIG15M

12V AC

BOX: 1 Pz

art. 1600/BIG15M

REPEATER SYSTEM FOR GUARDIAN 15

Art. 1600/RIP15

Guardian digital system 1-15 calls flush mount wall box 503

TECHNICAL SPECIFICATIONS
- Minimum wires diameter 0,6mm2
- Voltage supply 12V AC.
- Power consumption 2W
- To be mounted in 503 wall box
- Permanent memory of calls
- Body made in self extinguishing PC V2
- BUZZER INCLUDED

12V AC

BOX: 1 Pz

art. 1600/RIP15

Art. 1600/BIG15

Guardian repeater system 1-15 calls wall fixed

TECHNICAL SPECIFICATIONS
- Minimum wires diameter 0,6mm2
- Voltage supply 12V AC.
- Power consumption 6W.
- Fixed to the wall
- Permanent memory of calls
- Body made in ABS
- Dimensions 275x240x55mm
- Digits high: 135 mm
- Weight: 1kg
- G15-IMB interface included

12V AC

BOX: 1 Pz

art. 1600/BIG15

INTERFACE FOR ANALOG - DIGITAL CALL BOARDS

Art. 1200/3C

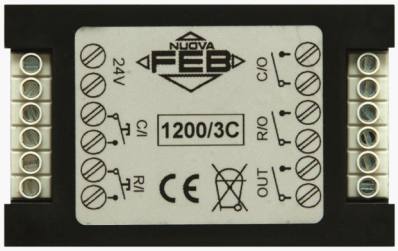
A/D interface for digital or falling tag call systems

Electronic device that drives acoustic-light signals (cod.1200/2) directly from digital bus-type call systems (central unit type Guardian or similar) or from analog call systems (with falling tags). The digital call systems and the analog call systems with falling tags can't drive directly the acoustic and light signals, OUTSIDE THE ROOM DOOR (like cod. 1200/2), due to their peculiar board wiring. The interface solves this problem because it has the inputs completely separated from the outputs and it works without intertering with the call system wirings.

Technical specifications

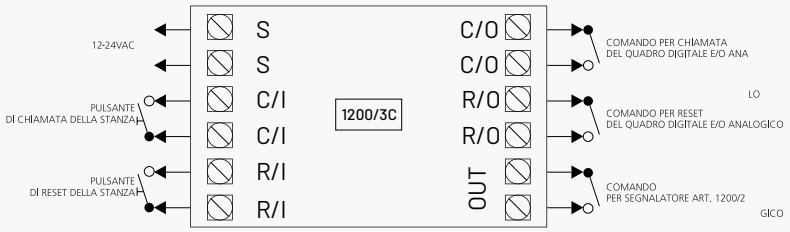
- Voltage supply: 12V AC. Out max: 3A 12V - 1A 230V
- Power consumption: 1W.
- Size:8 0x50x 20mm
- Plastic body.
- Sized for installation inside a recessed container 503

BOX: 1 Pz



art. 1200/3C

Example of the wiring



Art. 1200/CTR15

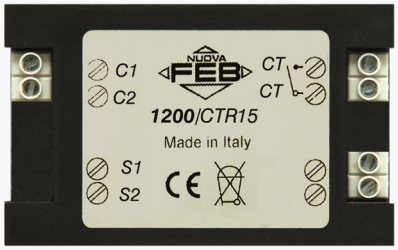
Interface to drive additional signal for G15 unit

Each detected call closes the n/o contact till the reset. It can drive additional bells, warning lights, buzzers.

Technical specifications

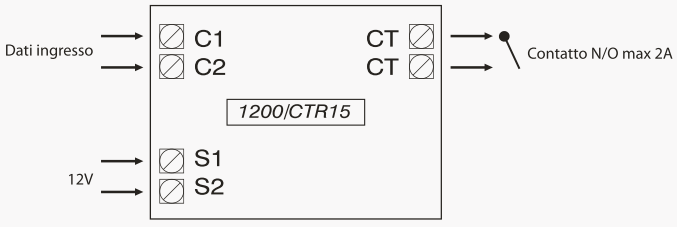
- Max. contact current 2A
- Power supply 12VAC, 1W
- Size 85 x 50 x 20 mm (for junction box)

BOX: 1 Pz



art. 1200/CTR15

Example of the wiring



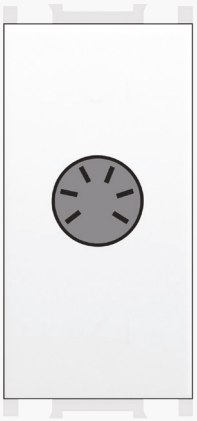
SOCKETS FOR KEYBOARDS

Art. 7085

7 poles DIN connector

Flat series: P = 23 mm

BOX: 1 Pz



art. 7085

Art. 14085

7 poles DIN connector

Also available for TL and Laser series

Flexì series: P = 21 mm

BOX: 1 Pz

Colors

TEC **WH**

art. 14085

art. 14085/TEC

art. 14085/WH

KEYBOARDS

Art. 1200/TL1

Handset without connector - 1 calling key - IP43

12/24V AC

L cable = 1500 mm

BOX: 1 Pz

art. 1200/TL1

Art. 1200/TLC1

Handset with connector - 1 calling key - IP43

12/24V AC

L cable = 1500 mm

BOX: 1 Pz

art. 1200/TLC1

Art. 1200/TL2

Handset without connector - 1 calling key - 1 room light key - IP43

12/24V AC

L Cable = 1500 mm

BOX: 1 Pz

art. 1200/TL2

Art. 1200/TLC2

Handset with connector - 1 calling key - 1 room light key - IP43

12/24V AC

L Cable = 1500 mm

BOX: 1 Pz

art. 1200/TLC2

Art. 1200/TLB2

Handset without connector - 1 braille calling key - 1 room light key - IP54

12/24V AC

L Cable = 1500 mm

BOX: 1 Pz

art. 1200/TLB2

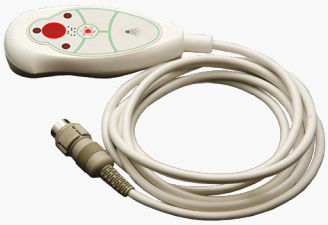
Art. 1200/TLBC2

Handset with connector - 1 braille calling key - 1 room light key - IP54

12/24V AC

L Cable = 1500 mm

BOX: 1 Pz



art. 1200/TLBC2

ANTIBACTERIAL KEYBOARDS

Art. 1200/TL3

Handset without connector with 3 commands - IP67

12/24V AC

L Cable = 2 m

BOX: 1 Pz

art. 1200/TL3

- Three commands handset. One is to call the nurse or medical personnel, the other two can be used to control the bedside light and the room light.
- Polycarbonate body, hidden screws and ergonomic design.
- It is possible to customize the handset with various types of connectors or on LED to visually confirm when a call has been placed. (Customizable membrane colors (green, blue or orange).

Art. 1200/TLC3

Handset 3 commands with connector - IP67

12/24V AC

L Cable = 2 m

BOX: 1 Pz

art. 1200/TLC3

ISO 22196:2011 Antibacterial test certificated
Compatible with the previous series Resistant to dust and water with an IP67 protection degree
Customizable membrane colors.

LED LIGHTS CALL SYSTEMS

Equipped with LED lights at reduced consumption (0,5W per channel) and with a complete series of accessories, the call systems of the family 1200 and 1201 are ideal for most of the applications, while fulfilling the existing prescriptions.

Main specifications

- Number of calls up to 24 in the same system with possibility to connect other systems up to 99.
- Intermittent and permanent sound alarm with output for a supplementary sound alarm.
- General and single-room reset.
- Contacts to group calls from a single room.
- Output to connect light room signals cod. 1200/1 and acoustic/light signals cod. 1200/2.
- Output to connect repeater systems.
- Output ta connect a backup battery.

Technical specifications

- Universal law voltage power supply 12-30V AC.
- Output at 12V, 1.5A to supply the emergency backup battery (not supplied).
- Output signal (S)=50mA MAX for supplementary electronic buzzer.
- General reset of the system and reset of the single call.
- Output signal to repeater system (S1-Sn)=50mA MAX for each channel, to dive 1 only repeater system.
- Output from clean contact (A1-An)=5A MAX for each channel, to drive acoustic / light signals or repeater systems.
- Consumption for single active channel is 50mA.

For correct sizing of the transformers, depending on applications, we give the following rules:

- To supply a call system up to 12 calls plus one repeater system, use one transformer cod. 1740.
- To supply a call system up to 24 calls plus one repeater system, use one transformer cod. 1163.
- To supply the led call systems plus the emergency signals, use the following experimental formula to calculate the power of the transformer in VA: P= 2 x Nc (VA), where Nc is the number of calls (or emergency signals).

Example 1

We want to calculate the power of the transformer needed to supply the call system of a department in a hospital, made by:
- 02 LED CALL SYSTEMS WITH 24 CALLS
- 48 EMERGENCY SIGNALS

P= 2 x 48 = 96VA, to be rounded to 100VA To supply other additional repeater systems, add up to the previous power 0,7VA for each call of the repeaters.

Example 2

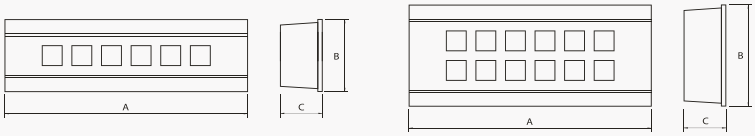
- If we want to add 2 other repeaters with 24 calls each, to the system of the previous example, we have 48x 07=33,6 VA more.
- Adding it to the power of the transformer of the previous exmple, we have P=96+33,6 = 129,6VA, rounded to 130VA.

Recessed call systems

Article	Call number	Rows	A	B	C	Box	Consumption
1200/4	4	1	218	110	50	1	5,0 VA
1200/6	6	1	268	110	50	1	7,0 VA
1200/8	8	1	318	110	50	1	8,0 VA
1200/10	10	1	368	110	50	1	9,0 VA
1200/12	12	1	418	110	50	1	10,0 VA
1200/16	16	2	318	190	50	1	13,0 VA
1200/20	20	2	368	190	50	1	15,0 VA
1200/24	24	2	418	190	50	1	17,0 VA

Recessed call system with led lights

12-30 VAC

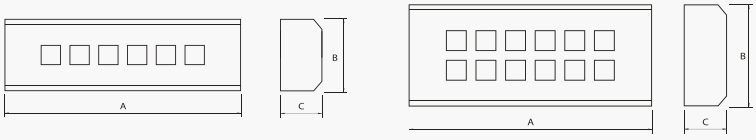


Wall mount call systems

Article	Call number	Rows	A	B	C	Box	Consumption
1201/4	4	1	218	110	50	1	5,0 VA
1201/6	6	1	268	110	50	1	7,0 VA
1201/8	8	1	318	110	50	1	8,0 VA
1201/10	10	1	368	110	50	1	9,0 VA
1201/12	12	1	418	110	50	1	10,0 VA
1201/16	16	2	318	190	50	1	13,0 VA
1201/20	20	2	368	190	50	1	15,0 VA
1201/24	24	2	418	190	50	1	17,0 VA

Wall mounted call system with led lights

12-30 VAC



LED LIGHT REPEATER SYSTEMS

The repeater systems are used to repeat in other control rooms the acoustic or light signals only. They can be connected to the main call system by the specific outputs and they have the some sizes ot the main systems. More repeater can be connected to the one main call system. The series of transtormers from FEB Elettrica is specifically studied to supply the call system. Select the right one for your needs. The series of doorbells from FEB Elettrica is specifically studied for the connection to the call systems. Select the right one for your needs.

Recessed call systems

Article	Call number	Rows	A	B	C	Box	Consumption
1200RIP/4	4	1	218	110	50	1	5,0 VA
1200RIP/6	6	1	268	110	50	1	7,0 VA
1200RIP/8	8	1	318	110	50	1	8,0 VA
1200RIP/10	10	1	368	110	50	1	9,0 VA
1200RIP/12	12	1	418	110	50	1	10,0 VA
1200RIP/16	16	2	318	190	50	1	13,0 VA
1200RIP/20	20	2	368	190	50	1	15,0 VA
1200RIP/24	24	2	418	190	50	1	17,0 VA

Recessed repeater system with led lights 12 VAC

Wall mount call systems

Article	Call number	Rows	A	B	C	Box	Consumption
1201RIP/4	4	1	218	110	50	1	5,0 VA
1201RIP/6	6	1	268	110	50	1	7,0 VA
1201RIP/8	8	1	318	110	50	1	8,0 VA
1201RIP/10	10	1	368	110	50	1	9,0 VA
1201RIP/12	12	1	418	110	50	1	10,0 VA
1201RIP/16	16	2	318	190	50	1	13,0 VA
1201RIP/20	20	2	368	190	50	1	15,0 VA
1201RIP/24	24	2	418	190	50	1	17,0 VA

Wall mounted repeater system with led lights 12 VAC

Accessories

1500/00

Neutral tag for call system with led lights

1500/01

Tag with number for call system with led lights

CALL SYSTEMS WITH FALLING TAGS

The falling tags call systems are used when the minimum consumption is required. They can be supplied by 12V and are available both in the wall mounted version and the recessed version, from 4 to 24 calls.
Buzzer included.

SUGGESTED TRANSFORMERS
From 4 up to 8 calls art. 1150
From 10 up to 24 calls art. 1163

Recessed call systems

Article	Call number	Rows	A	B	C	Box
1304/1R	4	1	218	110	50	1
1306/1R	6	1	268	110	50	1
1308/1R	8	1	318	110	50	1
1310/1R	10	1	368	110	50	1
1312/1R	12	1	418	110	50	1
1316/1R	16	2	318	190	50	1
1320/1R	20	2	368	190	50	1
1324/1R	24	2	418	190	50	1

Recessed call system with falling tags 12 VAC

Recessed call systems

Article	Call number	Rows	A	B	C	Box
50.4/1R	4	1	218	110	50	1
50.6/1R	6	1	268	110	50	1
50.8/1R	8	1	318	110	50	1
50.10/1R	10	1	368	110	50	1
50.12/1R	12	1	418	110	50	1
50.16/1R	16	2	318	190	50	1
50.20/1R	20	2	368	190	50	1
50.24/1R	24	2	418	190	50	1

Wall mounted call system with falling tags 12 VAC

EMERGENCY SIGNALLING DEVICE

Art. 1200/1

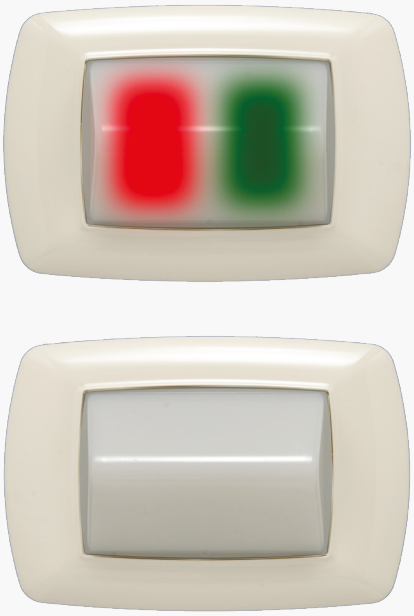
Acoustical optical emergency signalling device with logical interlock

Power supply: 12-24VAC by safety transformer
Power consumption: 6W
LED lights: 12-24V 3W

12-24V AC

Does not allow general and room reset

BOX: 1 Pz

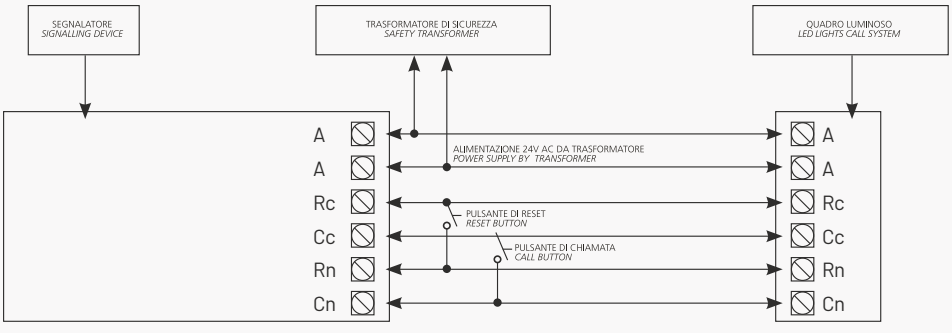


art. 1200/1

FOR HOSPITALS, WITH LOGICAL INTERLOCK, TO BE USED WITH THE 1200 AND 1201 SERIES LED PANELS

The device is applicable in a standard wall box for 3 modules, both for wall or recessed mounting. It allows to realize an optical signaling system with double alternating RED-GREEN lights with interlocked buttons. It allows to meet the latest regulations for hospitals and nursing / rest homes by signaling, for example, when placed outside the rest room, that the call has been made (RED signal) or the intervention of the staff (GREEN signal).

The RESET PUSH BUTTON resets the device



SIGNALLING DEVICE LEGEND

AA 12-24 VAC Power supply (use 1 only transformer)
Cc Common call contact
Cn Call contact of Number N
Rc Common reset contact
Rn Reset contact of Number N

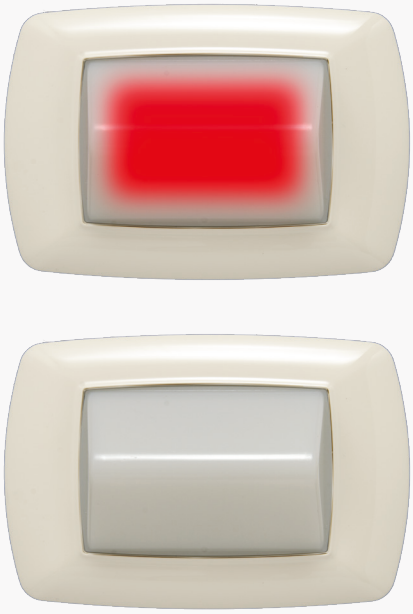
Art. 1200/2

Acoustical optical emergency signalling device

Power supply: 12-24VAC by safety transformer In application with call systems 1200 and 1201
Power consumption:2W
Light signal: n° 10 red light LED lamps
Sound signal: Buzzer 60dB at 1m

12-24V AC

BOX: 1 Pz



art. 1200/2

IT CAN BE USED WITH SERIES 1200 AND 1201 LED SYSTEMS

Electronic optical/acoustical signalling device done to produce an emergency signal by an intermittent sound and a flashing red light. It can be connected to a dry contact switch or relay Possibility to deactivate the buzzer.

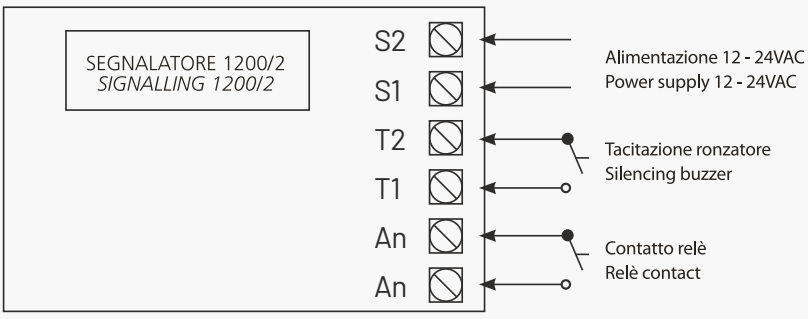
OPERATING FEATURES CALL BUTTON

It activates the steady optical alarm, the intermittent sound alarm, and the cali function in the call system.

After 20 seconds the sound alarm is deactivated, while the optical alarm starts flashing.

The contacts of the call and reset buttons in the device are clean contacts (relais) thus the device is specially suited to be used with different main control systems, like:

- call systems series 1200 and 1201;
- control units for temperature and liquid levels;
- control units for gases and exhaust smokes;
- remote or local emergency signals, included or not in security systems.

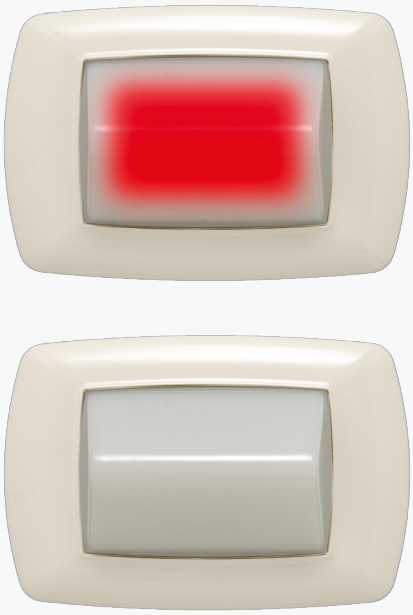


Art. 1200/3

Acoustical optical emergency signalling device

Power supply: 12-24VAC by safety transformer
Suggested art. 1130
Power consumption:2W
Light signal: n° 10 red light LED lamps
Sound signal: Buzzer 60dB at 1m

BOX: 1 Pz



art. 1200/3

Electronic optical/acoustical signalling device done to produce an emergency signal by an intermittent sound and a fixed red light.

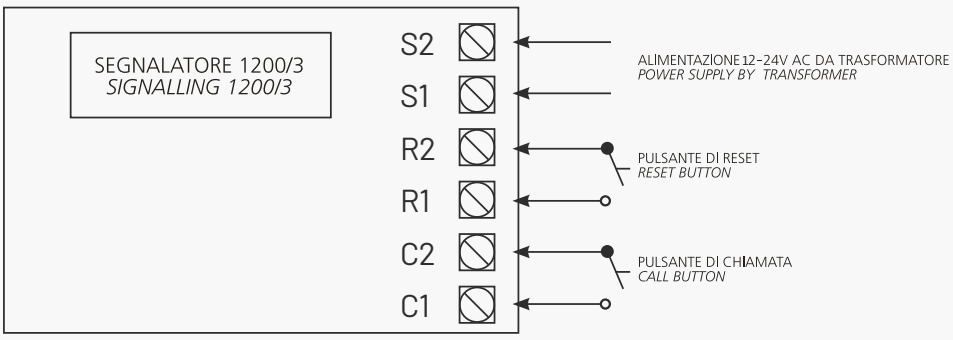
OPERATING FEATURES
SELF STANDING DEVICE

CALL BUTTON
It starts the fixed alarm light and the intermittent sound.
RESET BUTTON
It resets the device.

POSSIBLE APPLICATIONS

Realization of call systems in public or private environments (bathroom alarm, alarm from anti-panic device) or industries (shop-floors, noisy environments etc.). It gives remote signals optical/acoustical, to activate calls of assistance, intervention, emergency ond / or signals of alarm of failure.

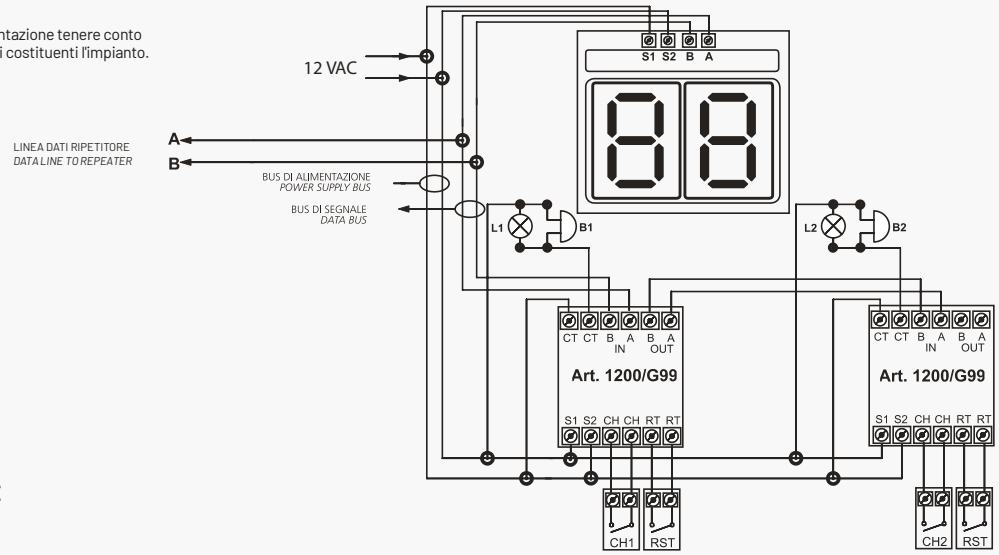
EXAMPLES OF USES
- signals of state in a process of machining
- signals of danger
- signals of alarm and/or failure
- signals tor emergency exit
- remote signals of call and/or emergency request
- remote signals for burglar alarms



EMERGENCY SIGNALLING DEVICE

Wiring diagram for display unit 1600/G99-BIG Master mode

Per la scelta del trasformatore di alimentazione tenere conto degli assorbimenti di tutti i componenti costituenti l'impianto.



LEGENDA - DISPLAY UNIT

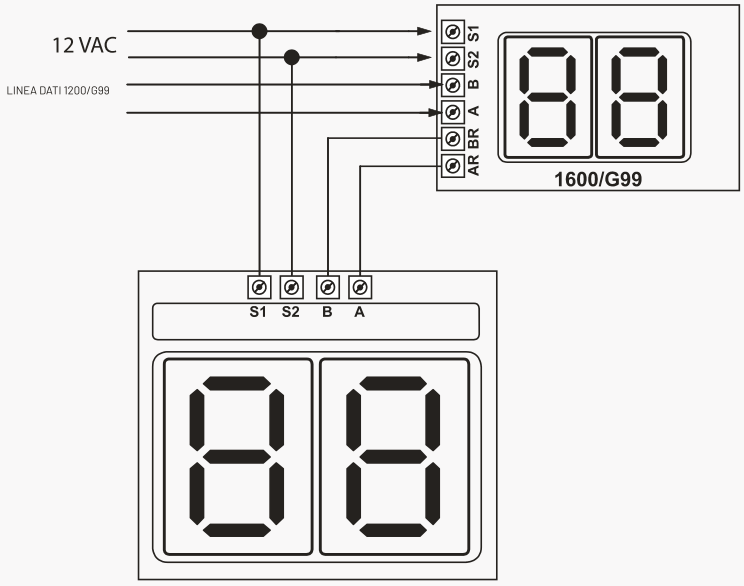
S1 S2 = *12 VAC power supply*
A B = *data transmission line*
AR BR = *data line to repeater*

LEGENDA - ROOM INTERFACE

S1 S2 = *12 VAC power supply*
A B = *data transmission line*
AR BR = *data line to repeater*
A B (IN) = *input data line*
A B (OUT) = *output data line*
CT CT = *N/O contact max 2A*
CH CH = *calling button*
RT RT = *reset button*
L1 - L2 = *12V indicator lamp*
B1 - B2 = *12V electronic bell*

N.B.= controllare la giusta corrispondenza dei cavi di segnale.

Wiring diagram for display unit 1600/G99-BIG repeater mode



LEGENDA - DISPLAY UNIT

S1 S2 = *12 VAC power supply*
A B = *data transmission line*
AR BR = *data line to repeater*

CONNECTION LAYOUT

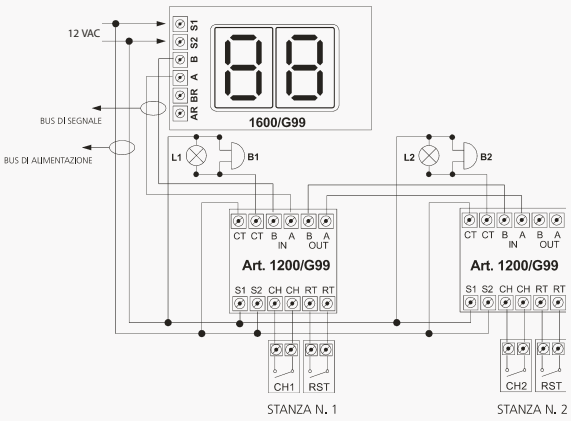
Wiring diagram for 2 calls between digital cal system art. 1600/G99 and room interface art. 1200/G99, with direct powering of indicator lamp and 12V buzzer - Single power supply.

To calculate the power fo transformer, please calculate the absorption of all the components of the system.

LEGENDA

S1 S2 = *12 VAC power supply*
A B = *data transmission line*
AR BR = *data line to repeater*
A B(IN) = *input data line*
A B(OUT) = *output data line*
CT CT = *N/O contact max 2A*
CH CH = *calling button*
RT RT = *reset button*
L1 - L2 = *12V indicator lamp*
B1 -B2 = *12V electronic bell*

N.B.= Check the correct position of data cables.



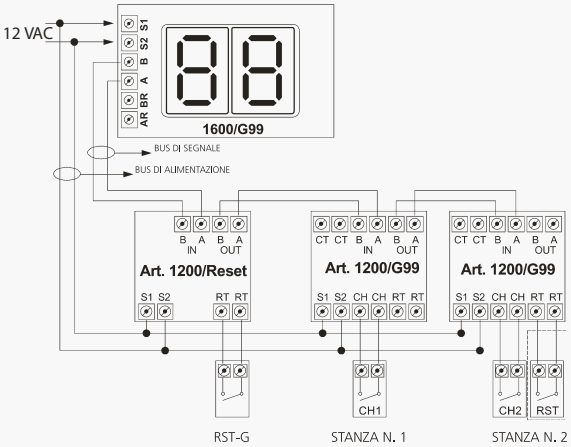
Wiring diagram for 2 calls between digital call system art. 1600/G99 and room interface art. 1200/G99, with general reset unit art. 1200/G99.

LEGENDA

S1 S2 = *12 VAC power supply*
A B = *data transmission line*
AR BR = *data line to repeater*
A B(IN) = *input data line to interface*
A B(OUT) = *output data line to interface*
CT CT = *N/O contact max 2A*
CH CH = *calling button*
RT RT = *reset button*
RST-G = *general reset button*

N.B.= *At least until the operation of self-programming of the system is completed, the last room interface must have connected both a reset button and both a call button. After completion, the reset button can be removed.*

N.B.= *check the correct position of data cables.*

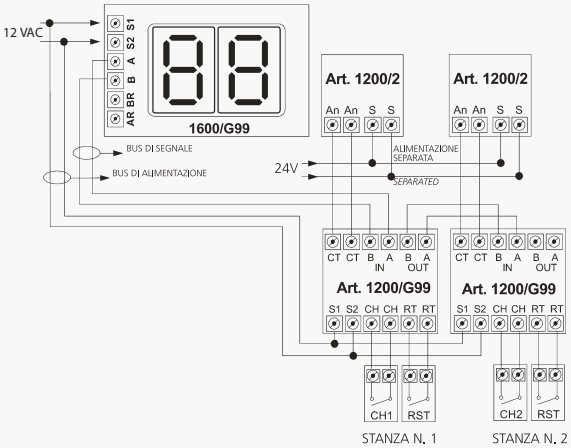


Wiring diagram far 2 calls between digital call system art. 1600/G99 and room interface art. 1200/G99, with direct drive of emergency signal art. 1200/2.

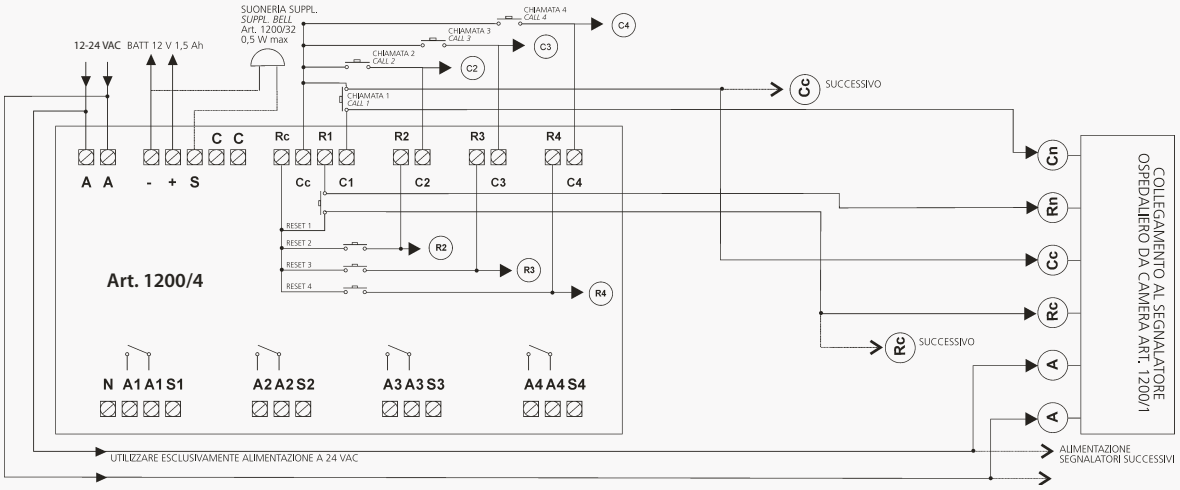
LEGENDA

S1 S2 = *12 VAC power supply*
A B = *data transmission line*
AR BR = *data line to repeater*
A B(IN) = *input data line to interface*
A B(OUT) = *output data line to interface*
CT CT = *N/O contact max 2A*
CH CH = *call button*
RT RT = *reset button*
An An = *driver contact*

N.B.= Check the correct position of data cables.



Layout for led call system with signalling device 1200/1



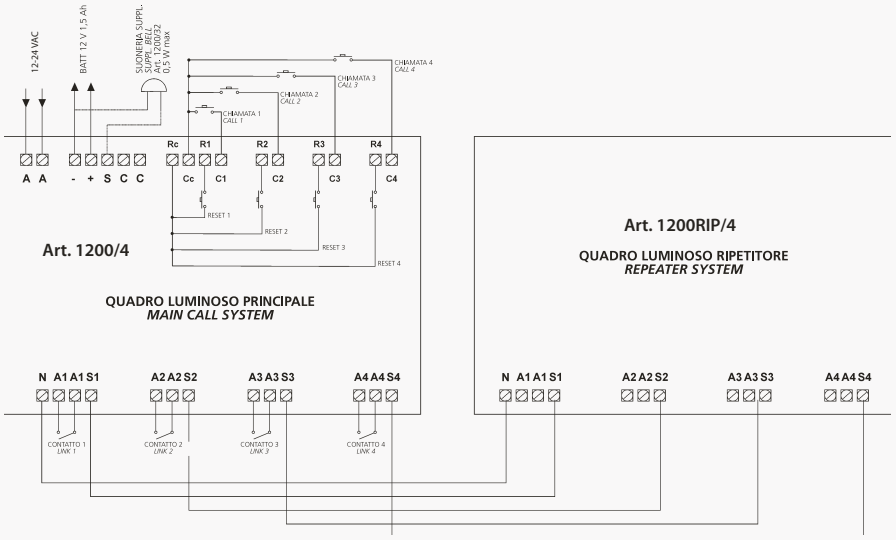
Call system legenda	
AA	*12-24 VAC power supply*
Batt.	*Backup battery supply*
S	*Supplementary buzzer*
C C	*General reset*
Rc	*Common contact for single reset*
Cc	*Common contact for single call*
R1-R4	*Single reset*
C1-C4	*Single call*
N	*Negative pole*
A1 A1	*Auxiliary contact n.1*
A2 A2	*Auxiliary contact n.2*
A3 A3	*Auxiliary contact n.3*
A4 A4	*Auxiliary contact n.4*
S1 S4	*Positive pole/repeater signal*

Call system legenda	
AA	*24VAC power supply (use 1 only transformer)*
Cc	*Common call contact*
Cn	*Call contact of Number N*
Rc	*Common reset contact*
Rn	*Reset contact of Number N*

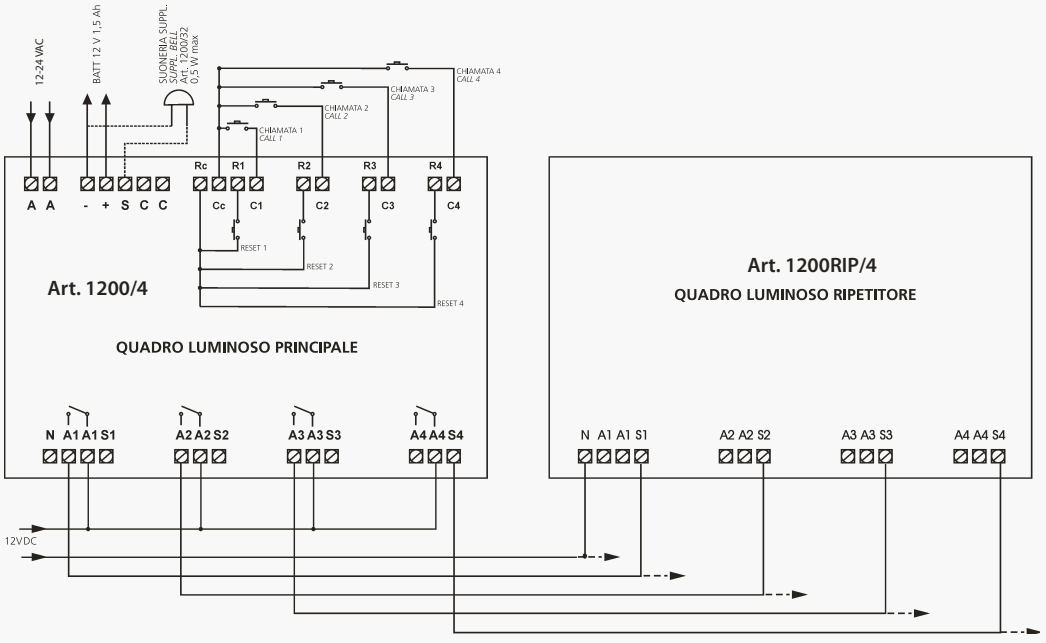
BE CAREFUL: For your safety the wiring ot the systems (or any addition to the system) must be done only when disconnected from the main electrical power. The lack of respect to this rule will cause damage to the call system.

CONNECTION LAYOUT

Layout to connect the led call system with a single repeater 1200RIP/4



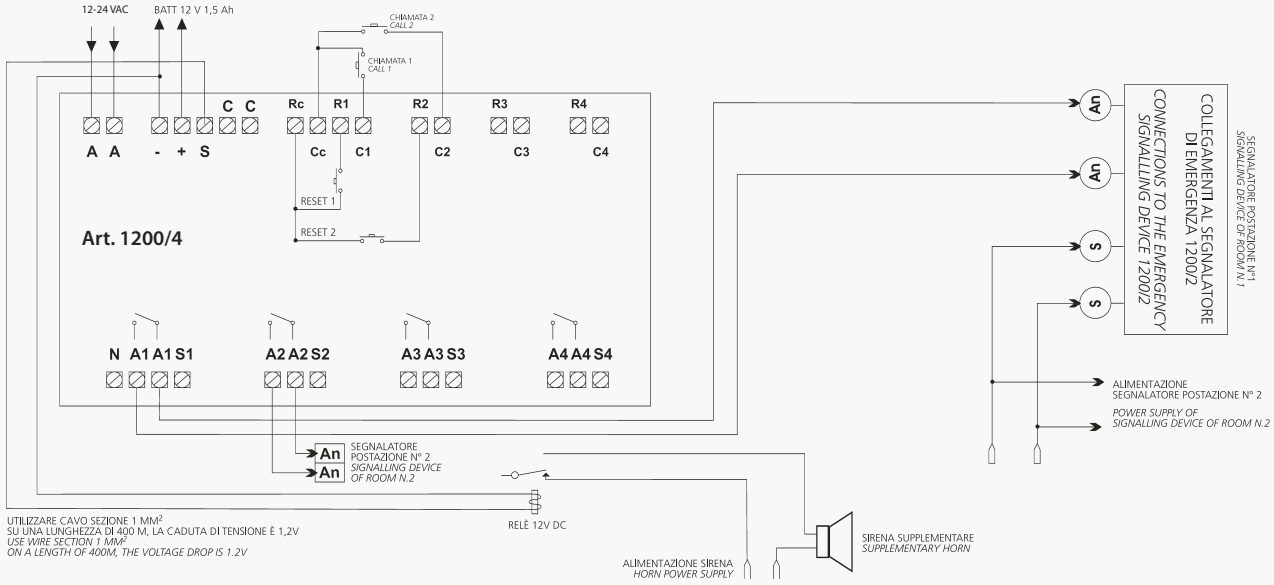
Layout to connect the led call system with two or more repeater 1200RIP/4



Call system legenda

AA	*12-24 VAC power supply*
Batt.	*Backup battery supply*
S	*Supplementary buzzer*
C C	*General reset*
Rc	*Common contact for single reset*
Cc	*Common contact for single call*
R1-R4	*Single reset*
C1-C4	*Single call*
N	*Negative pole*
A1 A1	*Auxiliary contact n.1*
A2 A2	*Auxiliary contact n.2*
A3 A3	*Auxiliary contact n.3*
A4 A4	*Auxiliary contact n.4*
S1 S4	*Positive pole/repeater signal*

Layout for led call system with 2 signalling devices 1200/2 and supplementary horn

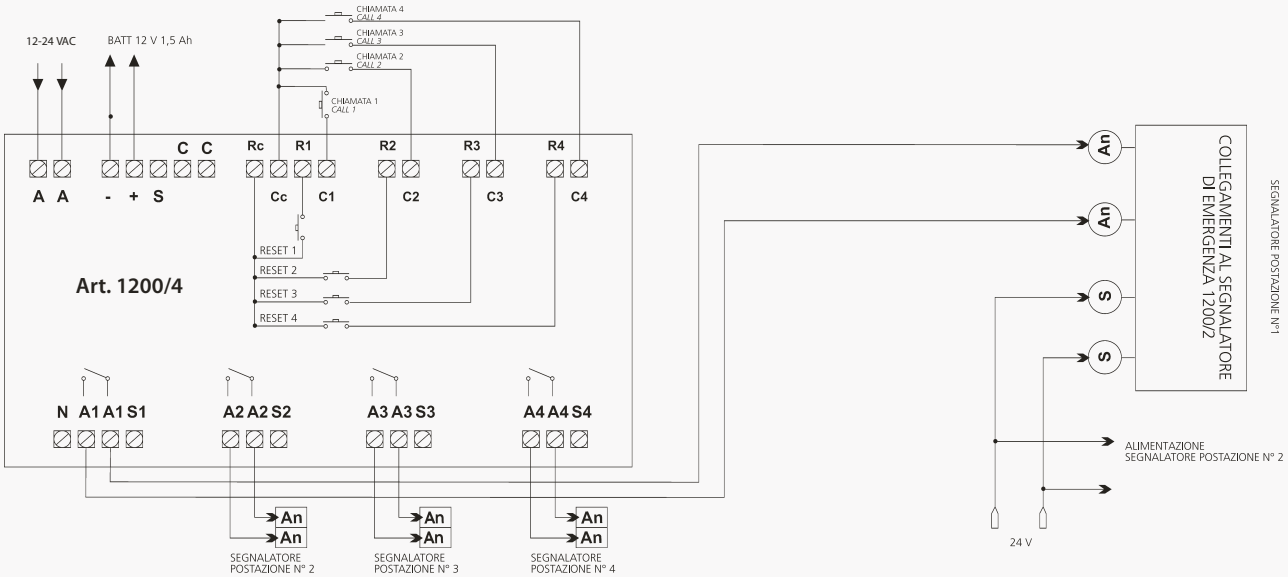


Call system legenda	
AA	*12-24 VAC power supply*
Batt.	*Backup battery supply*
S	*Supplementary buzzer*
C C	*General reset*
Rc	*Common contact for single reset*
Cc	*Common contact for single call*
R1-R4	*Single reset*
C1-C4	*Single call*
N	*Negative pole*
A1 A1	*Auxiliary contact n.1*
A2 A2	*Auxiliary contact n.2*
A3 A3	*Auxiliary contact n.3*
A4 A4	*Auxiliary contact n.4*
S1 S4	*Positive pole/repeater signal*
Signalling device legenda	
S - S	*12-24VAC power supply*
An - An	*Input of clean contact N/C*

BE CAREFUL: For your safety the wiring ot the systems (or any addition to the system) must be done only when disconnected from the main electrical power. The lack of respect to this rule will cause damage to the call system.

CONNECTION LAYOUT

Layour for led call system with 1 or more signalling devices 1200/2



Call system legenda

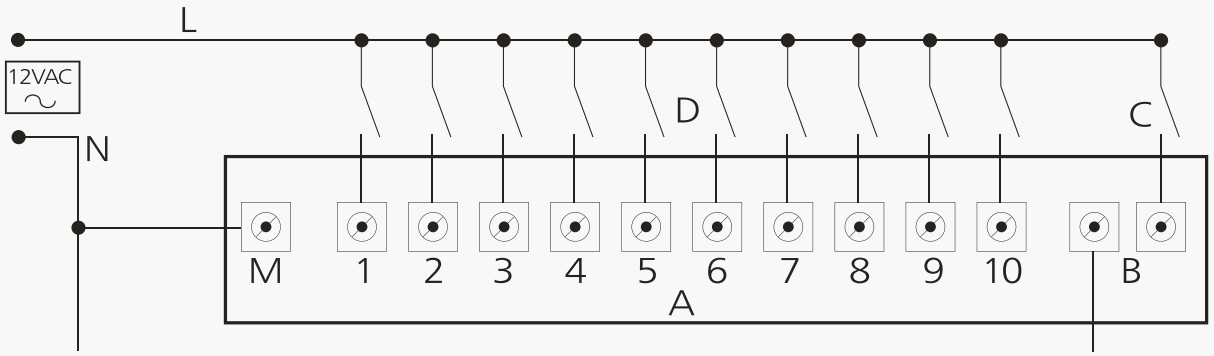
AA	*12-24 VAC power supply*
Batt.	*Backup battery supply*
S	*Supplementary buzzer*
C C	*General reset*
Rc	*Common contact for single reset*
Cc	*Common contact for single call*
R1-R4	*Single reset*
C1-C4	*Single call*
N	*Negative pole*
A1 A1	*Auxiliary contact n.1*
A2 A2	*Auxiliary contact n.2*
A3 A3	*Auxiliary contact n.3*
A4 A4	*Auxiliary contact n.4*
S1 S4	*Positive pole/repeater signal*

Signalling device legenda

S - S	*12-24VAC power supply*
An - An	*Input of clean contact N/C*

BE CAREFUL: For your safety the wiring ot the systems (or any addition to the system) must be done only when disconnected from the main electrical power. The lack of respect to this rule will cause damage to the call system.

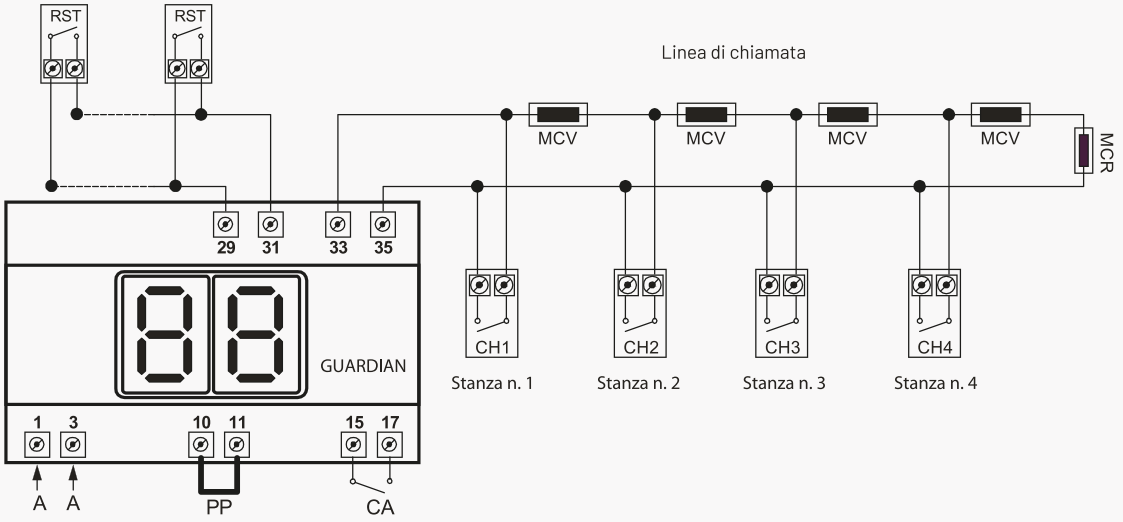
Wiring diagram of falling cards system



Legenda

A	*Number call terminals*
B	*Reset terminals*
C	*Reset push-button*
D	*Room call push-button*
M	*Neutral terminal (AC)*
G	*12VAC Power supply*

Wiring diagram of falling cards system



Call system legenda

AA	*230V power supply*
PP	*Bridge to positive battery pole*
MCV	*Micro resistor of call (green)*
MCR	*Micro resistor of closure (red)*
CH1-CH4	*Call buttons*
RTS	*Reset buttons*
CA	*N.O. contact*

ROOM ACCESS KIT

This very simple kit makes calling and answering from an external unit to an internal unit as easy as possible

kit/udienza/22

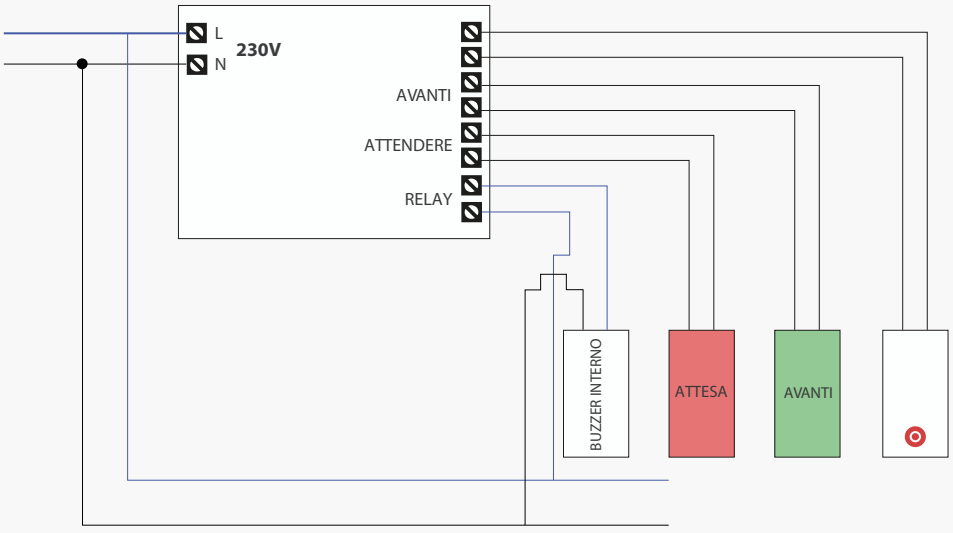
Room access kit

It is a traffic light kit that helps manage access in studies, offices and any other environment that requires privacy.

From the external unit, thanks to a red-green optical indicator, the waiting status or not for access is shown. By pressing the external button, the buzzer in the turret sounds. Then, by acting on the internal "entry" or "hold" buttons, always inserted in the turret, it is possible to change the color of the external light from red to green.

The turret is completed by a 10-16A bivalent socket that can be used freely.

INSIDE		*Q.TÁ*
1200/3U	Room access module	**1**
14603	Mounting frame for 3M box with screws	**1**
14025/WH	Name holder push button	**1**
14080/WH	White blank cap	**1**
3203/LAB	Brio LAB antibacterial cover plate	**1**
OUTSIDE		
14021/GO	16A push button with hold sign	**1**
14021/AT	16A push button with entry sign	**1**
14072/10WH	220V 50Hz 8VA white doorbell	**1**
14045/WH	Shuttered dual pitch 2 P + E IT STD 10/16A white socket	**1**
8102/WH	Aluminum white T-DESK module 4M Flexì	**1**



**The colors of the buttons are purely indicative and intended to explain the use of ATTESA and AVANTI*

BATHROOM ALARM UNIT

kit/bagno/22

Bathroom alarm unit

Optical-acoustic signaling device equipped with 9V buffer battery rechargeable and replaceable by a qualified installer.

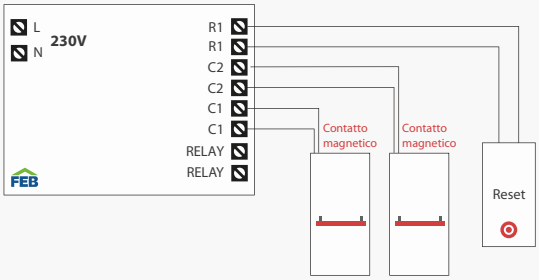
Thanks to the rechargeable battery, operation is guaranteed even in absence of mains voltage. Activates the optical and acoustic signal after closing one of the two call inputs and disables it after closing the reset contact.

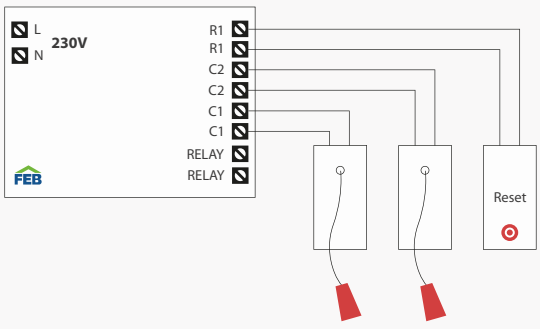
The signaling can also be repeated thanks to a relay equipped with an output with potential-free contacts. The acoustic signal can be deactivated by means of a dip-switch.

TECHNICAL FEATURES
- Power supply voltage: 230Vac
- Built-in power supply
- Max absorbed power: 2W
- Visibility: Over 10mt
- Acoustic alarm intensity: 60dB at 1m
- Output contact: N / O type 10A - 250V
- Operating temperature: 0 ° C + 50 ° C
- 850 ° self-extinguishing PC container.
- Weight: 0.1Kg
- Type of fixing: box 503
- Double call input
- Reset contact
- LAB anti-bacterial plaque

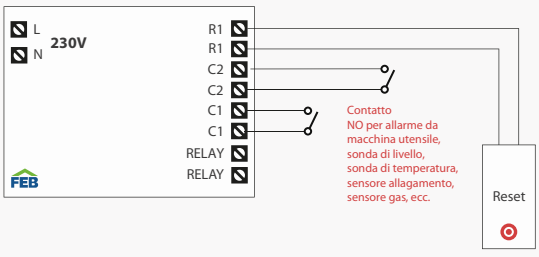
SISTEMA SET/RESET PER ALLARME BAGNO DISABILI

SISTEMA SET/RESET PER ALLARME PORTE DI SICUREZZA





SISTEMA SET/RESET PER ALLARME GENERICO



GENERAL CONDITIONS OF SALE AND GARANTUEE

GENERAL CONDITIONS OF SALE AND GARANTUEE

The Customer accepts all the terms of sale indicated below at the moment of issuing the order. The supplies are regulated by the following general conditions, excluding exceptions resulting from explicit written agreement. The supplies are not confirmed without a written document from FEB Elettrica s.r.l.

1. Prices
The prices indicated in the price list are "ex works" at our Factory. Packings are invoiced at their cast, they are included in the price and they are not acepted back. In case of variation of the prices of the raw materials or of whichever element of cost, we reserve the right to modify the prices without obligation of warning time.

2. Orders
For on order, to be considered valid, it must be received in writing by FEB and indicate for each item the P/N, description and quantity. The order confirmation will be filled out by FEB according to the price list that is valid in that moment and will need to be approved by the Customer within 3 working days from receipt. The order confirmation will be considered automatically approved if no communication will be sent back to FEB before the end of the 3rd working day after receipt. Free transport is only for orders above 500 €.
The indicated term of delivery does not oblige the selling Company, which is not held to reimburse any damages due to delivery delays, or to the partial or total cancellation of the supply.

3. Packing
It is possible to order quantities that are smaller than the minimum amount indicated on the catalog, but a surcharge for the processing might be added.

4. Transports
The goods, even if sold at destination, always travel at the risk and danger of the Customer, who will be responsible to accept with reserve the packages that might look damaged upon delivery.

5. Claims
Claims will have to be communicated within 8 days from the reception of the goods. The claim does not give right to the suspension of the payments. The return of the goods is not accepted withouth a written authorization from our offices. The authorized returned products must reach us free of charge. The credit far the goods will be defined after we receive them at the warehouse and after we have checked the goods returned and their quality and quantities.

6. Payments
The payment of the supply is done in the specified and agreed terms, at the address of FEB Elettrica s.r.l. The Customerbears all the risks far the delivery of the payment, for any form of payment. Rounding is not accepted. Default interest: payments that are delayed or missed with respect to the agreed upon conditions, will be subject to legal interests. The interests will be effective from the first day of either missed or delayed payment and will be in addition to other related charges and will not prevent the pursuit of further necessary actions. Default interest: payments that are delayed or missed with respect to the agreed upon conditions, will be subject to the legal interests. The interests will be effective from the first day of either missed or delayed payment and will be in addition to other related charges and will not prevent the pursuit of further necessary actions.

7. Information about the products
The information and the images contained in the catalogs and other publications only have the purpose of providing information about and illustrating the products. FEB ELETTRICA s.r.l. reserves the right to modify the technical characteristics of the produtcs. The products must be installed and used in accordance to the technical specifications and according to the safety rules of the electrical material used in the Country where the products are installed or used.
FEB ELETTRICA s.r.l. is in no way responsible for the damages to goods or people that are a consequence of improper use of the products, by not following the safety specifications, the usage instructions and the technical specs.

8. Conditions of guarantee
The guarantee on the products towards the final customer is referred to the legislation existing at the moment of the purchase. FEB Elettrica extends the guarantee up to 2 years from the date of the purchase excluding the smart home products. The Customer can exercise such rights toward the Vendor, at the conditions and in the terms stated by the law. In any case, in order to exercise the guardantee, the customer must declare with a letter the defect of conformity to the vendor within the term of two months from the date of the discovery, or the guarantee will not be valid. In case of defect of conformity of the sold products the Customer will be able to demand the repair or substitution of the some product. FEB Elettrica s.r.l. is committed to guarantee the repair or free substitution of the non conforming good. It is a task of the final Consumer to demonstrate the validity of the guarantee, by a document of delivery from the vendor with the name of the vendor and the date in which it has been sold. The guarantee is not applied in all the cases of improper use of the product or in all the cases in which the conformity defect is not directly attributable to FEB Elettrica s.r.l.

9. Controversy and responsibility
For whichever controversy the Court of Bologna (Italy) is competent.

10. Protection of personal data
The informations asked by FEB Elettrica s.r.l. to the Customers are indispensable for the treatment and the validation of the orders, the emission of the invoices and of the guarantee contracts. FEB Elettrica s.r.l. manages all the data related to its customers according the the Legislative Decree of June the 30th 2003, n°196, "Norms for protection of the personal data". The "holder" of their treatment is the company FEB Elettrica s.r.l., located in via Via Ca' Ricchi, 10-12 - 40068 San Lazzaro di Savena (BO), Italy

11. Color ranges
Color ranges are purely indicative, they may be subject to color tolerances, technically impossible to eliminate, because they are produced in different times, so, they are not contestable.

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febelettrica.it