

V8



Call systems

FEB Care | Systems G99 - G15 | Bathroom alarm kit | Hearing Kits



CALL SYSTEMS

Introduction

FEB has been active in the market of call panels for nurses for over 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 systems of very different sizes and with very different needs, but the key points of quality, ease of installation and use and reliability always remain fixed.

By choosing a FEB call system, you know that you can count on the experience of an Italian company certified to ISO 9001.

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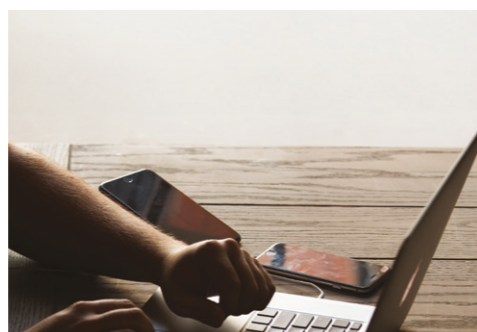
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FEB CARE is a brand new wireless nurse call system based on Android display unit. It has been specially designed to be completely flexible, easy to install, simple to program, but above all intuitive to use.

Although the installation is simple, CARE is a system designed with multiple features that make it a complete system, suitable for every need of prevention, control, quality of life for 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 reliable and longlasting solution. 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 at a glance a list of active alarms and can be expanded with other TABLETS, MONITOR, TV.

FEB 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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Interface for monitors

TABLET E MONITOR

Art. 3601/T

Tablet-call system control unit

Industrial grade tablet with FEB Care software installed for managing a wireless calling system. The software has an interface optimised for ease of use and navigation is similar to that of a smartphone. Calls are displayed in order of priority with different colours depending on 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 and an 8000 mAh battery. On the back there are VESA 200x100 mm fixing holes.

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



Art. 3601/T

Art. 3601/D

Docking station for the FEB Care tablet

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

Number of USB ports: 3



Art. 3601/D

Art. 3601/A

FEB Care antenna

Antenna for connecting the 3601/T tablet or the 3601/R touch screen unit to the rest of a FEB Care system



Art. 3601/A

Art. 3601/R

Control device for touch screen or repeater monitor

Android-based control device with pre-installed FEB Care software: connected to the antenna it allows connection with 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, 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 15 mm
 Weight: 110 g
 Operating temperature: 5 - 40 °C
 Relative humidity: <90%



Art. 3601/R

Art. 3601/AR

Antenna for main screen repeater

Antenna for connecting a 3601/R module to the system used as a repeater. Two units of this antenna are needed to connect a repeater:

A transmission antenna is connected to a USB port of the main control unit of the system and a second antenna is connected to a USB port of the 3601/R.

In the case of multiple repeaters, only one transmission antenna is needed and as many reception antennas as there are repeaters.



Art. 3601/AR

CALL POINTS

Art. 3602/M

Magnetic key

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



Art. 3602/M

Art. 3602/L

Call keyboard for bed

Wireless bedside keyboard call. The device has a call button, a reset button, a switch for emergency calls and a reassurance LED that lights up when a call is made. A cable with a fixing hook allows it to be attached to a bed for example and it is supplied with a wall bracket for storing it when not in use. The device signals when the batteries are almost flat.

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 audible signal and a reassurance LED that light up when a call is made. The device has two screw holes for a solid wall mounting and an RJ10 port for connection to a bed extension. The device signals when the batteries are almost empty.

Frequency: 433MHz
 Maximum distance: 70m in open field
 Power supply: 2 x 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

Bed extension keyboard for room call

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

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



Art. 3602/PL

Art. 3602/B

Bathroom call point

The device has a call button and a double pull cord for calling from the floor 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 flat.

IP protection rating: IP65
 Frequency: 433MHz
 Maximum distance: 70m in open field
 Power supply: 2 x 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 hanging 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 magnetic key FEB Care and has IP65 waterproof level.

Frequency: 433.92MHz
 Maximum distance: 50 m in open field
 Power supply: 3V battery, CR2450 lithium ion
 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

Art. 3602/CP

Pager Device

Pager device for receiving and displaying alarm messages from the FEB Care call system, for each call it displays the same message set on the control unit tablet.

4-line display for messages
 The alarm can be set as acoustic, luminous, vibration or a combination of the 3
 Alarm volume 75dB+
 Low battery, out of coverage, and unread message indication
 Internal rechargeable battery via USB
 Dialogues with FEB Care via the 3602/AR device



Art. 3602/CP

OUTDOOR SIGNALLERS & REPEATERS

Art. 3603

Outdoor/concentrator for room devices

This module is a luminous acoustic signal 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 to which it is connected and forwards their signal to the FEB Care control unit. It is designed for battery power or an external power supply. It is supplied with a wall mounting support.

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



Art. 3603

Art. 3603/R

Outdoor signal repeater

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

Frequency: 435MHz
 Maximum distance: 1000 m in open field
 Power supply: 12 VDC-800 mA, or 6 alkaline batteries Type C
 Battery life: 2-3 years in 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



GATES CONTROL

Art. 3604

Gates control unit

This door control system allows you to activate an alarm when an unauthorized person approaches and opens the monitored door.

It includes several advanced functions, such as:

- The ability to preemptively close a door equipped with an electric lock when an unauthorized person is in the vicinity of the door;
- Sound an alarm when a door remains open for too long;
- Allows nurses to escort a patient through the door without the alarm going off;
- 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 the operation as master or slave, to cover even very wide doors with two sensors

The gate control can work alone or as part of a FEB Care call system.

The status LEDs on 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 gate control.

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



Art. 3604

Art. 3604/T

Wrist transmitter for gate control

Patient-worn wrist transmitter: sends a signal to the gate control when the wearer approaches. Operates on batteries, lasting approximately 1 year.

Supplied with a faux leather strap, can also be used with anti-tear hospital bracelets. When the batteries are low, the transmitter sends a warning message, when it is within the detection range of the gate control.

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



Art. 3604/T

Art. 3604/R

Remote reset for gate control

This transmitter allows you to bypass the access control alarm, when a nurse has 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 site, as when you use the magnetic key.

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



Art. 3604/R



Scatola kit

Kit 3605/KIT

Bed abandonment kit with bed sensor and receiver for 3 bed sensors

This kit allows you to check the presence of a patient in bed and emits an audible alarm as soon as he gets up.

The kit is composed of:

- Under-mattress sensor: detects the presence of the patient in bed and works under most mattresses. It works in combination with the receiver and can detect both when the patient has got out of bed and, with the "Early Alert" function, even when he is still on the edge of the mattress about to get up. The life of this sensor is 2 years, after which it must be replaced.
- Receiver for 3 bed sensors: receives the presence signal in bed from the sensor and allows you to manage up to 3 independent sensors.

It incorporates 3 LEDs that show the presence in bed and an acoustic alarm that warns you when a patient has got up. This module can be used alone, or it can be connected to the FEB Care wireless system or to a G99 wired system room concentrator.

It is possible to have either a battery power supply or a fixed 6V power supply. The alarm volume is adjustable and it is also possible to set the device with a time delay for 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.

Art. 3604/ADIN

Power supply for gate and door control from DIN rail

Output: 15W 12V 1.25A



Art. 3604/ADIN

Art. 3604/A

Power supply for door entry and gate control

Power supply for gate control

Output: 12VDC - 3A



Art. 3604/A



Art. 3605/L



Art. 3605/R

BED ABANDONMENT ALARM

Art. 3605/L

Bed sensor

Under-mattress sensor to trigger an alert when the patient leaves the bed, works under most mattresses. Works in conjunction with the receiver and can be connected to the FEB Care wireless call system, the G99 wired system and also as a stand-alone monitoring kit. The life of this product is 2 years, after which it must be replaced.

Material: PVC and PET
 Dimensions: 760 x 250 mm
 Net weight: 635 g
 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/A

Power supply for 3 bed sensor receiver

Power supply 6VDC - 300mA for the receiver connectable to 3 bed sensors

Output: 6VDC - 300mA



Art. 3605/A

Art. 3605/R

Receiver for 3 bed sensors

Receiver for under-mattress sensors: allows you to manage up to 3 independent sensors. Through 3 status LEDs it allows 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 G99 wired system room concentrator. It is possible to have either a battery power supply or 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 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 a straight line
 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

ACCESSORIES

Art. 3665 - 3665/N

No touch door controller

This command allows you to open a door without touching it: by passing your hand in front of the IR sensor, it is closed a 2A relay that can activate an electric lock or a door actuator

Power supply: 12-24 VDC
 Detection distance (adjustable): 6-20 cm
 Contact relay: 2A NO-NC
 Timing: 5s - 10s - toggle mode
 Protection degree: IP66
 Material: ABS
 Dimensions: 115 x 70 x 15 mm
 Installation: wall-mounted



Art. 3665

Art. 3665/N



G99

The Guardian 99 system allows you to create signaling systems up to 99 calls. It consists of a master unit with display (2-digit both flush-mounted and wall-mounted, or 13-digit alphanumeric wall-mounted only) and a number of room concentrators that varies depending by the number of calls to be made.

The main characteristic of this new signaling system is the ability to self-program the entire network. The master unit recognizes by itself how many call units are present in the system and codes them with a progressive numbering, without individual micro-coding and without the need for programming, neither initially nor for network expansion.

The entire system is powered by a single 12VAC transformer and can be connected to repeater panels and to external acoustic and luminous indicators. The connections are made via a 4-pole cable (2 poles for power, 2 poles for dat

Art. 1600/GMATRIX/N

Wall display

Alphanumeric display unit of the master/ slave type of lane, for the display and notification of calls, to be combined with the G99 range.

Container made of metal, painted with ice white epoxy powders and equipped with accessory for fixing to the wall or ceiling.

The connection to the system is via a Bus system consisting of two conductors for the data line (A-B) and two conductors for the power line which must be common to the entire system and proportioned 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 allows you to realize:

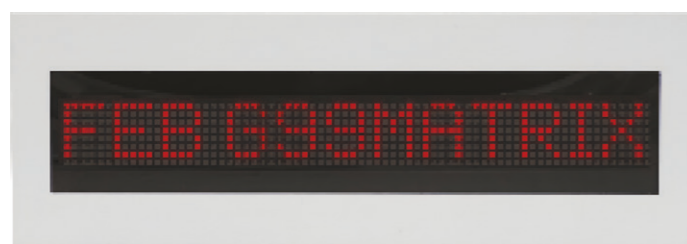
- Call, via button, with permanent optical signal and intermittent acoustic signal.
- Display of the corresponding message on the "Display Panel" located in a manned location.
- Cyclic display of calls active at the same time
- Self-programming of the entire system.
- Possibility of repeating calls on other G99 series panels
- Auxiliary contact for controlling other signaling devices.
- System wiring with Bus system (2+2).
- Possibility of making systems with up to 99 calls using a single display.

- Adjustment and display of the current time.
- Possibility of silencing the acoustic signal.
- Customization, through programming by dip-switches or by Android device, of the call labels.
- Auxiliary contact for controlling other signaling devices.
- System wiring with Bus system (2+2).
- Possibility of making systems with up to 99 calls using a single display.

Technical features

- Power supply voltage: 12Vac
- Absorption current: 400mA
- Max. number of characters: Ten
- Character height: 35mm
- Visibility: Over 10m
- Acoustic alarm intensity: 40dB at 30cm
- Output contact: Type N/O 1A - 250V
- Viewing angle: 150°
- Operating temperature: 0°C - +40°C
- Container in sheet steel painted with epoxy powders.
- Dimensions: 330.0 x 100.0 x 55.0
- Weight: 1.5Kg
- Fixing: wall or ceiling with bracket supplied.

Box: 1 pc



art. 1600/GMATRIX/N

Art. 1600/G99/N

Guardian 1-99 calls digital panel - Built-in box 503

- Call via button, with built-in permanent optical and acoustic signal (buzzer).
- Display of the number of calls on the display.
- Cyclic display of simultaneously active calls.
- Self-programming of the entire system.
- Possibility of repeating calls on other display panels repeaters.
- Auxiliary contact for single concentrator unit, for controlling other auxiliary signalling devices.
- System wiring with bus system with 2-pole pair cable.
- Display of 99 calls for each master unit with display.
- Housing of the concentrator display unit in 503 boxes.

Dimensions: 123.5 x 84.0 x D 37.0 mm

Power supply 12VAC-5W

BOX: 1 pc



art. 1600/G99/N

Art. 1600/BIG/N

Large Display for G99 - Outdoor

- Digits height 135 mm
- Viewing angle 150°
- Power supply 12VAC, 6W
- Dimensions 275x240x55 mm
- Weight 1 KG, ABS cabinet

Can be used both as a main unit and as a repeater in a call system with 1600/G99. Max. 99 calls, optical and acoustic alarm, self-programming of the entire system, 4-wire serial wiring.

Dimensions: 278.0 x 240.0 x D 74.0 mm

BOX: 1 pc



art. 1600/BIG/N

Art. 1200/G99/N

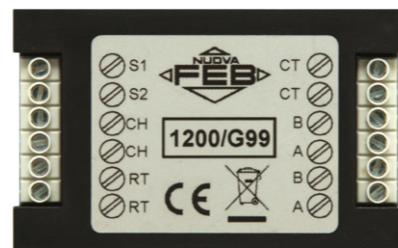
Room unit for G99

- Power supply 12VAC
- Power consumption max 1W
- Dimensions: 80.0 x 50.0 x 20.0 mm
- Signal transmission delay: 0.02 sec.

Interface unit for G99 signalling system.
Generates a unique recognition code in the system.
Transmits the call and reset signals to the central unit.
It can activate, with a clean NO contact, additional local signalling devices: indicator lights, buzzers, bells, art. 1200/2 which require max. 2A.
Due to its small size, it can be inserted in a junction box or in the bed headboard.

Dimensions: 80.0 x 51.0 x D 23.0 mm

BOX: 1 pc



art. 1200/G99/N

Art. 1200/RESET/N

General reset unit for G99

- Power supply 12VAC
- Power consumption max 1W
- Dimensions: 80.0x50.0x20.0mm
- Signal transmission delay: 0.02sec.

Interface unit for G99 signaling system. Generates a general reset signal for all calls received in the system. It can be used alone or in addition to the room reset generated by the room concentrators, but does not reset the outside door signalers.
Due to its small size, it can be inserted in a junction box.

BOX: 1 pc



art. 1200/RESET/N

SIGNAL DELAY CALCULATION

The data flow between the concentrators and the main unit, is subject to a delay that depends on the number of devices passed through.

The delay is maximum between the last concentrator and the main unit, therefore equal to $R=N \times 0.02$ sec.

CABLE SIZING

• Signal: up to 50m use a simple twisted pair with a section of 0.30/0.50 mm²; over 50 m, a shielded twisted pair with a section of 0.50 mm².

• Power supply: section calculated according to the practical formula $S=N \times 0.015$, where S is the section in mm² and N the number of concentrators.

Example: system for 50 rooms
 $S=50 \times 0.015=0.75$ mm²



Art. 1200/PC/N

PC connection interface for G99

- Free text description of calls
 - USB connection
 - Management software included on CD
 - Requires Windows 7
 - Power supply 12VAC, 1W
 - Dimensions 85 x 50 x 20 mm (for junction box)
- Displays calls to the 1600/G99 unit on the PC screen
Dimensions: 80.0 x 51.0 x D 23.0 mm

BOX: 1 pc



art. 1200/PC/N

Art. 1200/CTR/N

Interface for additional signaling system G99

- Max. Current 2A
 - Power supply 12VAC, 1W
 - Dimensions 85x50x20 mm (for junction box)
- Each detected call activates n/o contact until reset. Allows activation of additional ringtones, indicator lights, buzzers.
Dimensions: 80.0 x 51.0 x D 23.0 mm

BOX: 1 pc



art. 1200/CTR/N

Art. 1163/G99

DIN rail/wall transformer for G99 - 4 Din modules

The power absorbed by the system, expressed in VA, is calculated according to the practical formula $P=N \times 2$, where N is the number of concentrators.

Example: System for 50 concentrators $P=50 \times 2=100VA$.

Depending on the available spaces, to reach the necessary power calculated above, it is possible to use either multiple transformers with the secondary in parallel, or a single transformer.

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

Dimensions: 72.0 x 115.0 x D 61.0 mm

BOX: 1 pc



art. 1163/G99

Art. 1200/LC3/N

Red-green-white acoustic/luminous emergency signal with integrated room concentrator for G99 series panels

Power supply: 12 VAC via safety transformer

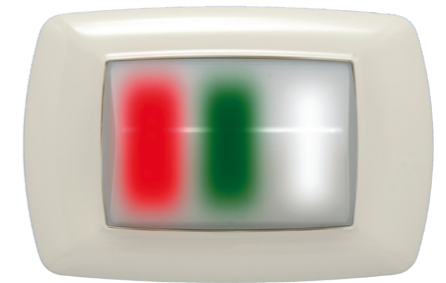
Consumption: 2W

Light signal: Power LED high brightness red, green and white

Acoustic signal: n.1 piezo buzzer with acoustic power of 60dB at 1m.

12V AC

BOX: 1 pc



art. 1200/LC3/N

Electronic optical/acoustic signaler suitable for producing an emergency signal by emitting an intermittent sound and a triple alternating light indication, providing the possibility of diversifying the light signal according to the type of intervention to be performed.

This device integrates a room concentrator, with a self-programmable physical address, that allows the management of all room activities and the sending of the signals on the department bus to the digital numeric signalling panel Art. 1600/G99 (see attached diagram).

OPERATING PRINCIPLES

INDEPENDENTLY OPERATED DEVICE

ROOM CALL BUTTON:

Activates the acoustic/luminous alarm of the control unit and

turns on the red LED for the room called indication.

BATHROOM CALL BUTTON

Activates the acoustic/luminous alarm of the control unit and turns on the white LED for the bathroom alarm indication.

RESET BUTTON

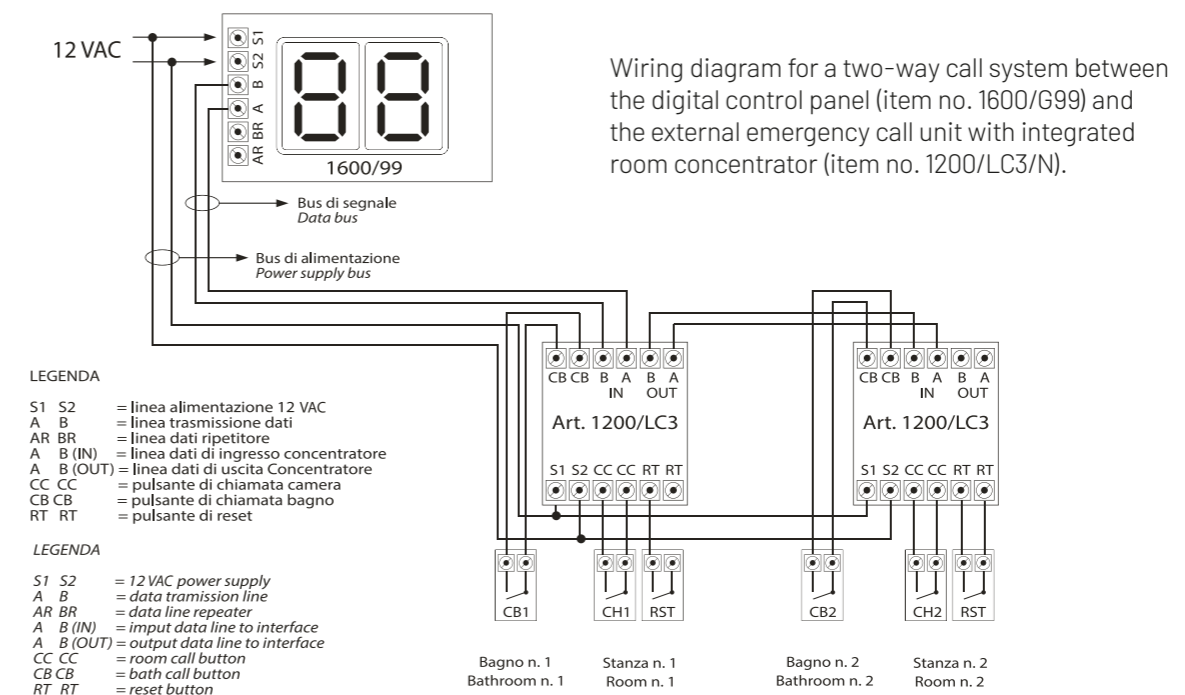
First press: resets the control unit, turns off the red or white LED and turns on the green LED for the presence of a nurse in the room.

Second press: turns off the green LED and resets the call system.

The call button is always enabled.

The reset button is only enabled by the call button.

Device designed in accordance with the standard: DIN VDE 0834-1



Wiring diagram for a two-way call system between the digital control panel (item no. 1600/G99) and the external emergency call unit with integrated room concentrator (item no. 1200/LC3/N).

LEGENDA

S1 S2 = linea alimentazione 12 VAC
A B = linea trasmissione dati
AR BR = linea dati ripetitore
A B (IN) = linea dati di ingresso concentratore
A B (OUT) = linea dati di uscita Concentratore
CC CC = pulsante di chiamata camera
CB CB = pulsante di chiamata bagno
RT RT = pulsante di reset

LEGENDA

S1 S2 = 12 VAC power supply
A B = data transmission line
AR BR = data line repeater
A B (IN) = input data line to interface
A B (OUT) = output data line to interface
CC CC = room call button
CB CB = bath call button
RT RT = reset button

N. B. = Controllare la giusta corrispondenza dei cavi di segnale.
Check the correct position of data cables



G15

Guardian G15 allows you to create systems with up to 15 calls using only 2 conductors. G15 also allows you to customize the number of calls on request, expanding the fields of application up to 90 calls.

MAIN FEATURES

- Call via button with permanent acoustic and light signal.
- Display of the corresponding number on the display.
- Storage of simultaneous calls in waiting list and displaying them via LED.
- Progressive scrolling of waiting calls after the previous reset.

- General reset from the panel and reset from a single call with art. 1200/3C.
- Auxiliary contact on the panel 8A.
- Buffer battery on the panel, autonomy 30 min.

ALL PACKAGES INCLUDE

The package includes the control unit and the microcodings necessary to create a system with 15 calls, waiting and displaying them via LED.

G15

Art. 1600/15

Guardian 1-15 calls for DIN rail

TECHNICAL CHARACTERISTICS

- Power supply 230V AC.
- Power consumption 10W
- 6 DIN modules
- Autonomy in absence of mains 30 minutes
- Self-extinguishing polycarbonate box V2
- BUZZER INCLUDED

230V AC

BOX: 1 pc



art. 1600/15

Art. 1600/G15

Guardian 1-15 calls digital panel-wall mount in 503 type box

TECHNICAL FEATURES

- Power supply 12V AC.
- Power consumption 2W
- Housed in 503 wall box
- Permanent call memory
- Self-extinguishing V2 PC box

- BUZZER INCLUDED

12V AC

BOX: 1 pc



art. 1600/G15

Art. 1600/BIG15M

Guardian 1-15 Calls Wall Mount Digital Panel

TECHNICAL CHARACTERISTICS

- Power supply 12V AC.
- Power consumption 6W
- Wall mounting
- Permanent memory
- ABS body
- Dimensions 275x240x55mm
- Digit height: 135 mm
- Weight: 1kg
- G15-IMB interface included
- Intermittent buzzer included
- Repeater for 1600/BIG15M

12V AC

BOX: 1 pc



art. 1600/BIG15M

REPEATER PANELS FOR G15

Art. 1600/RIP15

Repeater panel for G15 - wall mount in 503 type box

TECHNICAL FEATURES

- Power supply 12V AC.
- Power consumption 2W
- Housed in 503 wall box
- Permanent call memory
- Self-extinguishing V2 PC box
- BUZZER INCLUDED

12V AC

BOX: 1 pc



art. 1600/RIP15

Art. 1600/BIG15

Repeater panel for G15 - wall mount

TECHNICAL CHARACTERISTICS

- Power supply 12V AC.
- Power consumption 6W
- Wall mounting
- Permanent memory
- ABS body
- Dimensions 275x240x55mm
- Digit height: 135 mm
- Weight: 1kg
- G15-IMB interface included

12V AC

BOX: 1 pc



art. 1600/BIG15

INTERFACES FOR ANALOG-DIGITAL CALL SYSTEMS

Art. 1200/3C

Analog/digital interface for call systems

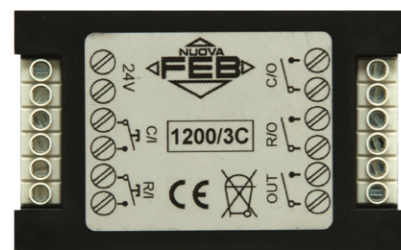
Electronic device that allows you to control acoustic-luminous outdoor signals (art. 1200/2) directly from digital bus call systems (Guardian control unit or similar) or analog (falling tag panels). These systems do not allow direct control of the acoustic/luminous signals due to their particular type of system.

The device solves this inconvenience as it has inputs totally isolated from the outputs and therefore its integration in these particular systems becomes transparent.

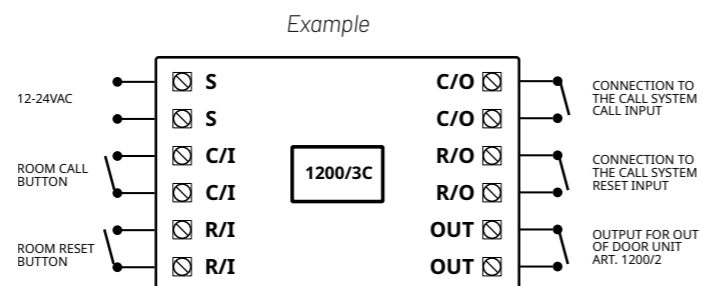
Technical features

- Power supply: 12VAC,
- Out max: 3A 12V-1A 230V
- Power consumption: 1W.
- Dimensions: 80 x 50 x 20 mm
- Housed in a plastic container
- Prepared for housing in a 503 flush-mount box

BOX: 1 pc



art. 1200/3C



Art. 1200/CTR15

Interface for additional signaling system G15

Each detected call activates the n/o contact until reset. Allows activation of ringtones, indicator lights, additional buzzers.

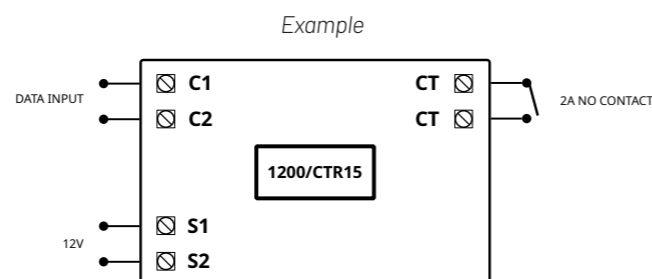
Technical features

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

BOX: 1 pc



art. 1200/CTR15



KEYBOARD SOCKETS

Art. 7085

7-pin DIN connector

Series Flat: P = 23 mm

BOX: 1 Pc



art. 7085

Art. 14085

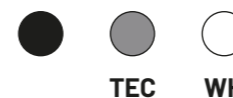
7-pin DIN connector

Disponibile anche per serie TL e Laser

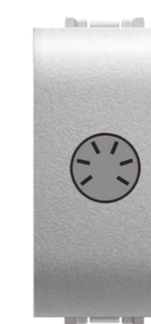
Series Flexi: P = 21 mm

BOX: 1 Pc

Colors



art. 14085



art. 14085/TEC



art. 14085/WH

KEYBOARDS

Art. 1200/TL1

Keyboard without connector-1 call button-IP43

12/24V AC

Cable length = 1500 mm

BOX: 1 Pc

art. 1200/TL1

Art. 1200/TLC1

Keyboard with connector-1 call button-IP43

12/24V AC

Cable length = 1500 mm

BOX: 1 Pc

art. 1200/TLC1

Art. 1200/TLB2

Keyboard without connector-1 Braille call button 1 room light button - IP43

12/24V AC

Cable length = 1500 mm

BOX: 1 Pc

art. 1200/TLB2

Art. 1200/TLBC2

Keyboard with connector-1 Braille call button 1 room light button - IP43

12/24V AC

Cable length = 1500 mm

BOX: 1 Pc

art. 1200/TLBC2

Art. 1200/TL2

Keyboard without connector - 1 call button 1 room light button - IP43

12/24V AC

Cable length = 1500 mm

BOX: 1 Pc

art. 1200/TL2

Art. 1200/TLC2

Keyboard with connector - 1 call button 1 room light button - IP43

12/24V AC

Cable length = 1500 mm

BOX: 1 Pc

art. 1200/TLC2

Art. 1200/AS

Tear-proof keyboard cable with 7-pin connector

art. 1200/AS

ANTIBACTERIAL KEYBOARDS

Art. 1200/TL3

Keyboard without connector 3 commands-IP67

12/24V AC

Cable length = 2 m

BOX: 1 Pc



art. 1200/TL3

- 3 buttons keypad: one for calling medical and service personnel for wards of patients in hospitals, clinics and nursing homes and two for turning on the presence and the room lights.
- Polycarbonate body, hidden locking screws and signalling via a membrane designed with symbols studied for easy interpretation.
- Ergonomic design for easy grip and easy cleaning.
- This keyboard can be equipped with different connectors and a LED diode for reassurance of a successful call. The keyboard can have the membrane coloured green, blue or orange

Art. 1200/TLC3

Keyboard with connector 3 commands-IP67

12/24V AC

Cable length = 2 m

BOX: 1 Pc



art. 1200/TLC3

ISO 22196:2011 Certified with antibacterial test
Compatible with previous series
Just and water resistant with protection IP67
Customizable membrane color.

ILLUMINATED LED PANELS

Equipped with low power LED lights (0.5W channel) and with a complete series of accessories, the 1200 and 1201 series panels are ideal for most applications, in compliance with current regulations.

Main features

- Number of calls up to 24 on the same panel and possibility of expansion with more panels, with progressive numbers up to 99.
- Permanent intermittent acoustic alarm and output for additional acoustic alarm.
- General and single-room reset.
- Contacts for grouping calls from single rooms.
- Dedicated output for connecting room light indicators art.1200/1 and acoustic/light indicators art.1200/2.
- Connection output for repeater panels.
- Output for backup battery power supply.

Technical features

- Universal low voltage power supply 12-30VAC
 - 12V, 1.5A output for emergency backup battery power (not supplied).
 - Signal output (S) = 50mA MAX for external electronic additional ringtone.
 - General reset from the panel and reset from a single call.
 - Repeater signal output (S1-Sn) = 50 mA MAX
 - Clean contact output (A1-An) = 5A MAX for a single channel, for acoustic/luminous indicators or repeaters.
 - Consumption for each active channel 50mA.
- For correct sizing of transformers to be used according to the applications, we report the following rules:

- To power the panels up to 12 calls plus a repeater panel, use a transformer code 1140.
- To power the panels up to 24 calls plus a repeater panel, use a transformer code 1163.
- To power the light panels plus the related hospital emergency signals, use the following empirical formula to calculate the power in VA of the transformer:
 $P = 2 \times Nc \text{ (VA)}$, where Nc = number of calls (or signalers).

Example 1

To calculate the power of the power transformer of a signaling system in a hospital ward consisting of:
 02 LIGHT PANELS WITH 24 CALLS
 48 HOSPITAL EMERGENCY SIGNALERS
 $P = 2 \times 48 = 96\text{VA}$ round up to the normalized power = 100VA

To power any additional repeater panels, add 0.7VA to the overall power of the transformer, for each call from the repeater panels.

Example 2

To add 2 more repeater panels with 24 calls to the system in the previous example, you will then have to add:
 $48 \times 0.7 = 33.6 \text{ VA}$
 to the power of the transformer of example 1.
 We will obtain in total:
 $P = 96 + 33.6 = 129.6\text{VA}$ rounding up we will have 130VA

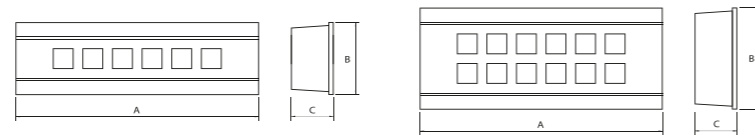
The series of transformers from FEB Elettrica is specifically studied to supply the call systems. Select the right one for your needs.

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 mount led call systems

	Article	Calls	Rows	A	B	C	pc/box	Power
	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

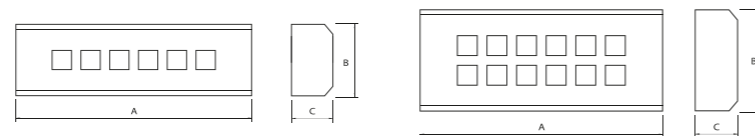
12-30 VAC



Wall mount led call systems

	Article	Calls	Rows	A	B	C	pc/box	Power
	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

12-30 VAC



LED LIGHTS REPEATER SYSTEMS

Repeater panels are used to replicate only the acoustic and luminous signals in other control rooms. They can be connected to the main panel via the appropriate inputs and have the same dimensions as the main ones. More repeater panels can be connected to the main one.

Recessed mount led repeater systems

	Article	Calls	Rows	A	B	C	pc/box	Power
	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

12 VAC

Wall mount led repeater systems

	Article	Calls	Rows	A	B	C	pc/box	Power
	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

12 VAC

Accessories		1500/00 Neutral tag for call system with led lights		1500/01 Tag with number for call system with led lights

EMERGENCY SIGNALLING DEVICE

Art. 1200/1

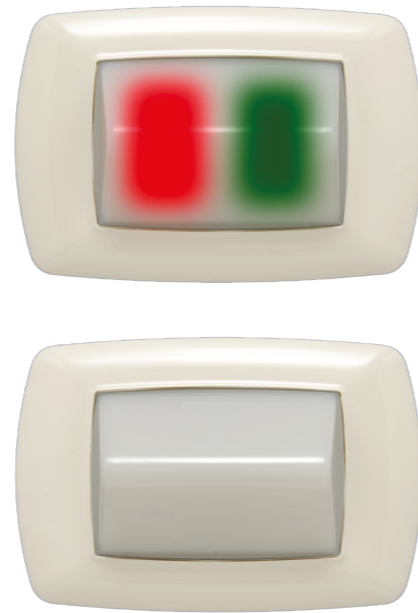
Acoustical optical emergency signalling device with logical interlock

Power supply: 12-24VAC by safety transformer

Power consumption: 6W

LED lights: 12-24V 3W

BOX: 1 Pc



art. 1200/1

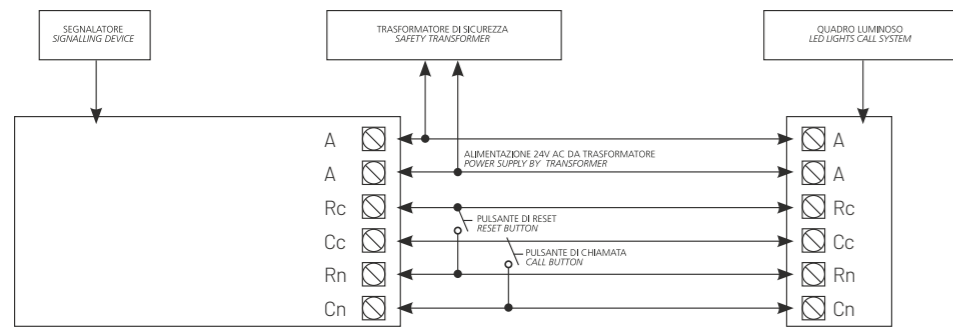
FOR HOSPITALS, WITH LOGICAL INTERLOCK

The device can be installed inside a standard box for 3 modules, both for wall or recessed mounting. It realizes an optical signalling system with double alternate RED-GREEN lights with interlocked buttons.

IT CAN BE CONNECTED TO THE LED CALL SYSTEMS SERIES 1200 AND 1201

It satisfies the prescriptions for hospitals, health care centres, rest houses, by signalling outside of the bed rooms, the call (RED signal light) or intervention of the nurses (GREEN signal light).

the RESET BUTTON only 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

To be connected to call systems series 1200 and 1201

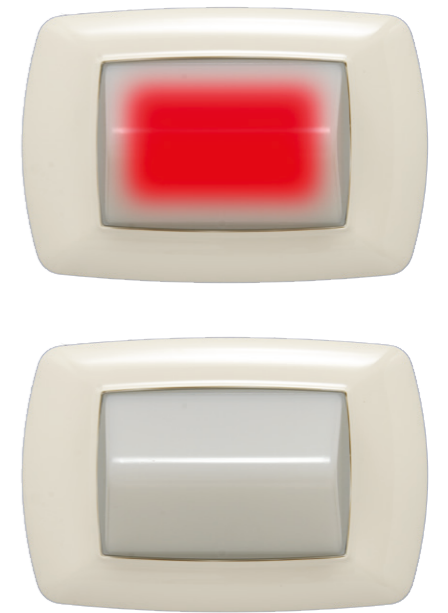
Power consumption: 2W

Light signal: n° 10 red light LED lamps

Sound signal: Buzzer 60dB at 1m

12-24V AC

BOX: 1 Pc



art. 1200/2

Electronic optical/acoustical signalling device done to produce an emergency signal by an intermittent sound and a flashing red light. Possibility to deactivate the buzzer.

RESET BUTTON

It resets the device and deactivates the call function in the call system.

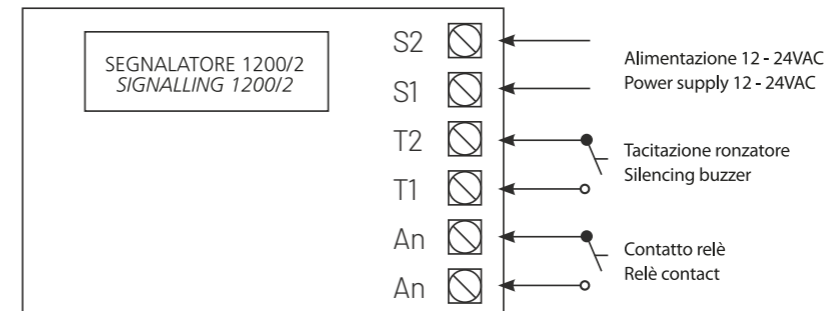
The contacts of the call and reset buttons are clean contacts (relays), thus it is specially suited to be used with different main control systems, like:

- 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.

OPERATING FEATURES

CALL BUTTON

It activates the steady optical alarm, the intermittent sound alarm, and the call function in the call system. After 20 seconds the sound alarm is deactivated while the optical alarm starts flashing.



EMERGENCY SIGNALLING DEVICE

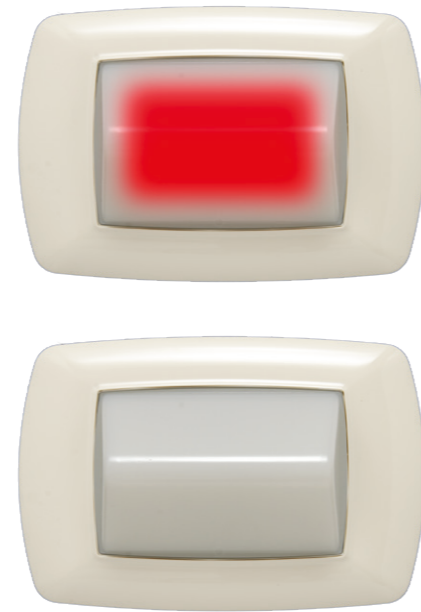
Art. 1200/3

Autonomous 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: Piezo Buzzer 60dB at 1m

t12-24V AC

BOX: 1 Pc



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

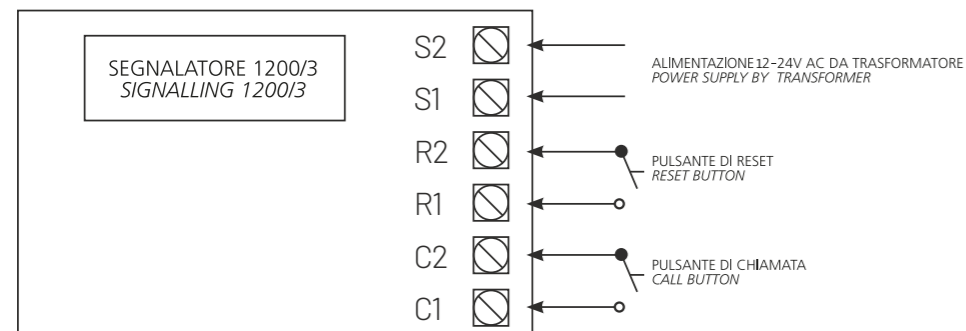
Alarm systems in public or private environments (bathroom

alarm, alarm from anti-panic device) or industries (shop-floors, noisy environments).

It gives remote signals, optical/acoustical to activate calls of assistance, intervention, emergency and/or signals of alarm or failure.

EXAMPLES OF USES

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





HEADBOARD SYSTEMS

- 34501
- 34502
- 34503
- 34504
- 34510

Art. 34501

Headboard compliant with Directive 93/42/EEC on "medical devices"

Body made of extruded aluminium, anodised in a natural finish or painted in a RAL colour on request (average thickness 2.5 mm) with rounded edges. Also available with a natural wood-effect finish. End caps in pearl grey ABS with rounded edges (customisable on request) and secured with a single screw to facilitate lamp replacement or any other maintenance work. Complete with quick-fix wall mounting bracket in galvanised steel.

OPTICS

Upper optical compartment for indirect general lighting and lower optical compartment for reading and examination lighting. Both compartments are fitted with flat panels made of transparent acrylic material featuring longitudinal prisms; the exterior is smooth for easy cleaning and has been treated with an anti-reflective coating to prevent dust build-up. The prisms are also oriented to provide the most suitable

asymmetrical distribution of the light beam towards the patient's feet. Internal reflector made of white-painted sheet steel.

LED WIRING

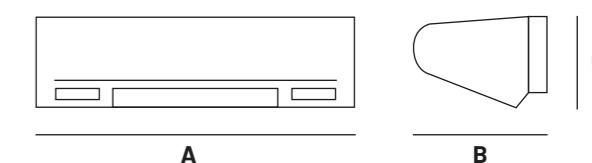
High-efficiency LED modules (130 lm/W) with CRI >90. Standard power supply: 220-240 V, 50/60 Hz, with dedicated drivers. Wiring with electronic ballasts for T8/T5 fluorescent lamps available on request.

CONFIGURATIONS

Electrical services, call systems and various types of lighting are selected according to the customer's specific requirements.



Article	mm*		
	A	B	C
34501/066	660	185	120
34501/096	960	185	120
34501/130	1300	185	120
34501/160	1600	185	120



* The dimensions given are for guidance only. The following items can be customised to meet the customer's technical and aesthetic requirements.

Art. 34502

Bed-end beam for patient rooms in hospitals or care homes, featuring multiple integrated services on a single channel.

Headboard compliant with Directive 93/42/EEC on 'medical devices'. Body made of extruded aluminium, anodised in a natural finish or painted in a RAL colour on request (average thickness 2.5 mm) with rounded edges. Also available with a natural wood finish. Lower profile in extruded aluminium for housing electrical components. End caps in pearl grey ABS with rounded edges (customisable on request) and secured with a single screw to facilitate lamp replacement or any other maintenance work. Complete with quick-fix wall mounting base in galvanised steel.

OPTICS

Upper optical compartment for indirect general lighting and lower optical compartment for reading and examination light. Both compartments are fitted with flat sheets of transparent acrylic material with longitudinal prisms, smooth on the outside for easy cleaning and treated with a depolarising agent to

prevent dust build-up. The prisms are also oriented to provide the most suitable asymmetrical distribution of the light beam towards the patient's feet. Internal reflector in white-painted sheet steel.

LED WIRINGS

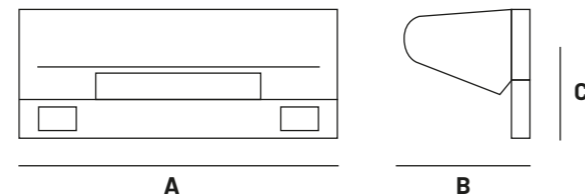
High-efficiency LED modules 130 lm/W with CRI>90. Power supply standard 220-240V-50/60Hz with dedicated drivers. Wiring with electronic ballasts for T8/T5 fluorescent lamps on request.

CONFIGURATIONS

Electrical services, call systems and various types of lighting are selected according to the customer's specific requirements.



Article	mm*		
	A	B	C
34502/066	660	185	200
34502/096	960	185	200
34502/130	1300	185	200
34502/160	1600	185	200



* The dimensions given are for guidance only. The following items can be customised to meet the customer's technical and aesthetic requirements.

Art. 34503

Bed-end beam for patient rooms in hospitals or care homes, featuring multiple integrated services on the duct and medical gas line.

Bedside unit compliant with Directive 93/42/EEC on 'medical devices'. Body made of extruded aluminium, anodised in a natural finish or painted in a RAL colour on request (average thickness 2.5 mm) with rounded edges. Also available with a natural wood finish. End caps in pearl grey ABS with rounded edges (customisable on request) and secured with a single screw to facilitate lamp replacement or any other maintenance work. Complete with quick-fix wall mounting bracket in galvanised steel. Available in various lengths depending on the number of beds.

OPTICS

Upper light compartment for indirect general lighting and lower light compartment for reading and examination lighting. Both compartments are fitted with flat panels made of transparent acrylic material featuring longitudinal prisms; the exterior is smooth for easy cleaning and has been treated with an anti-reflective coating to prevent dust build-up. The prisms are also oriented to provide the most suitable asymmetrical distribution of the light beam towards the patient's feet. Internal reflector made of white-painted sheet steel.

LED WIRINGS

High-efficiency LED modules (130 lm/W) with a CRI >90. Standard power supply: 220-240 V / 50/60 Hz with dedicated drivers. Wiring with electronic ballasts for T8/T5 fluorescent lamps available on request. Inside the beam there are two separate cable ducts for 230V and for extra-low voltages, with terminal blocks located near the cable entry points. All wiring terminates at one or more plug-and-socket type terminal blocks.

MEDICAL GAS

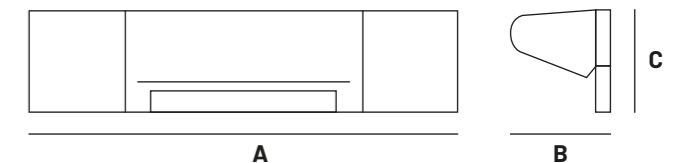
Each beam is fitted with a rear compartment, completely separate from the compartment for electrical cables, which can hold up to four medical gas tubes (not included).

CONFIGURATIONS

Electrical services, call systems and various types of lighting are selected according to the customer's specific requirements.



Article	mm*		
	A	B	C
34503/160	1600	242	300
34503/190	1900	242	300
34503/350	3500	242	300
34503/510	5100	242	300



* The dimensions given are for guidance only. The following items can be customised to meet the customer's technical and aesthetic requirements.

Art. 34504

Bedside rail for hospital wards or care homes, featuring multiple integrated services on the MEDICAL GAS duct and compartment.

Light fitting compliant with Directive 93/42/EEC on 'medical devices'. Body made of extruded aluminium, anodised in a natural finish or painted in a RAL colour on request (average thickness 2.5 mm) with rounded edges. Also available with a natural wood finish. End caps in pearl grey ABS with rounded edges (customisable on request) and secured with a single screw to facilitate lamp replacement or any other maintenance work. Complete with quick-fix wall mounting bracket in galvanised steel. Available in various lengths depending on the number of beds.

OPTICS

Upper light compartment for indirect general lighting and lower light compartment for reading and examination lighting. Both compartments are fitted with flat panels made of transparent acrylic material featuring longitudinal prisms; the exterior is smooth for easy cleaning and has been treated with an anti-reflective coating to prevent dust build-up. The prisms are also oriented to provide the most suitable asymmetrical distribution of the light beam towards the patient's feet. Internal reflector made of white-painted sheet steel.

LED WIRINGS

High-efficiency LED modules (130 lm/W) with a CRI >90. Standard power supply: 220-240 V / 50/60 Hz with dedicated drivers. Wiring with electronic ballasts for T8/T5 fluorescent lamps available on request. Inside the beam there are two separate cable ducts for 230V and for extra-low voltages, with terminal blocks located near the cable entry points. All wiring terminates at one or more plug-and-socket type terminal blocks.

MEDICAL GAS

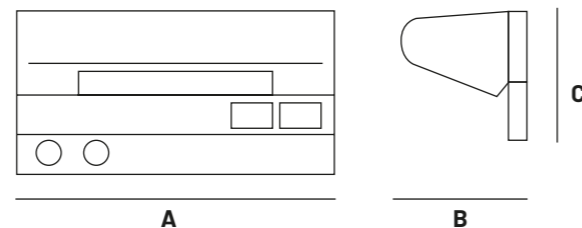
Each beam is fitted with a rear compartment, completely separate from the compartment for electrical cables, which can hold up to four medical gas tubes (not included).

CONFIGURATIONS

Electrical services, call systems and various types of lighting are selected according to the customer's specific requirements.



Article	mm*		
	A	B	C
34504/160	1600	242	300
34504/190	1900	242	300
34504/350	3500	242	300
34504/510	5100	242	300



* The dimensions given are for guidance only. The following items can be customised to meet the customer's technical and aesthetic requirements.

Art. 34510

Bedside channel 34510. With multiple integrated functions.

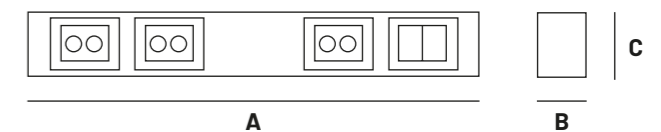
Lamp head compliant with Directive 93/42/EEC on 'medical devices'. Body made of extruded aluminium, anodised in a natural finish or painted in a RAL colour on request (average thickness 2.5 mm) with rounded edges. Also available with a natural wood-effect finish. Aluminium end caps with rounded edges (customisable on request) and secured with a single screw to facilitate lamp replacement or any other maintenance work. Supplied with a quick-fix wall mounting bracket in galvanised steel. Available in various lengths.

WIRING

The electrical services, call systems and various types of lighting are selected according to the customer's specific requirements. Inside the beam, there are two separate cable ducts for 220-240 V and for extra-low voltage, with terminal blocks located near the cable entry points. All wiring is connected to one or more plug-and-socket type terminal blocks.



Article	mm*		
	A	B	C
34510/160	1600	242	300
34510/190	1900	242	300
34510/350	3500	242	300
34510/510	5100	242	300



* The dimensions given are for guidance only. The following items can be customised to meet the customer's technical and aesthetic requirements.



BATHROOM ALARM KIT

BATHROOM ALARM KIT



* 9320/TB switch not included in the kit



kit/bagno/22w

Bathroom alarm kit

An optical-acoustic signalling device equipped with a rechargeable lithium backup battery that can be replaced by a qualified installer. Thanks to the rechargeable battery, operation is guaranteed even in the absence of mains power. It activates the optical and acoustic signalling when either of the two call inputs is closed, and deactivates it when the reset contact is closed. The signal can also be repeated via a relay fitted with a potential-free contact output. An alarm notification can be sent to a smartphone via the built-in

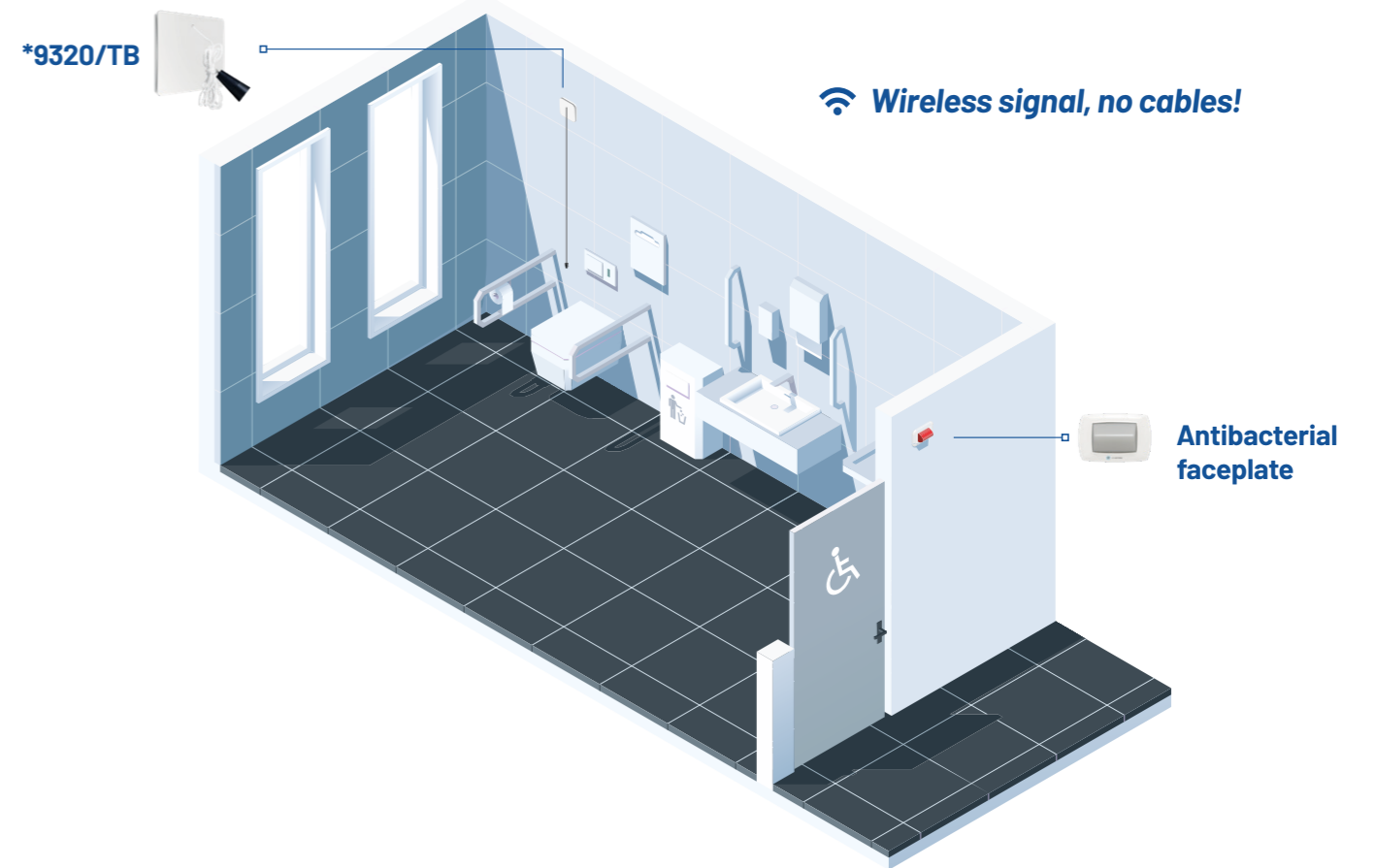
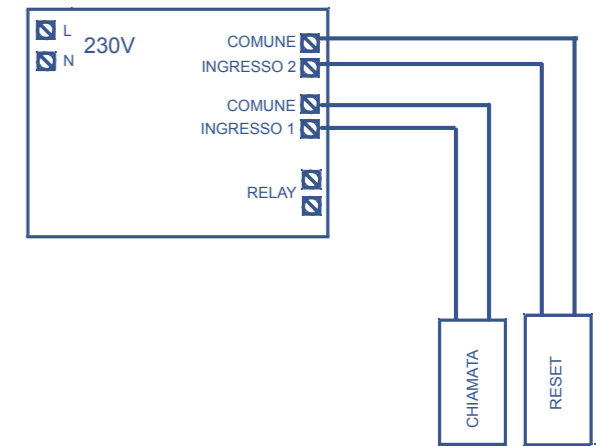
Wi-Fi connection. The audible signal can be disabled via a DIP switch or manually, offering full control over the buzzer.

 Wireless

 LAB antibacterial faceplate

- Supply voltage: 230 VAC Built-in power supply
- Maximum power consumption: 2 W
- Visibility: Over 10 m
- Audible alarm intensity: 70 dB at 1 m
- Output contact: NO type, 5 A - 250 V
- Operating temperature: 0 °C to +50 °C
- Housing made of self-extinguishing PC rated to 850 °C.
- Weight: 0.1 kg
- Mounting type: 503 box
- Wireless and wired call and reset inputs
- LAB antibacterial faceplate

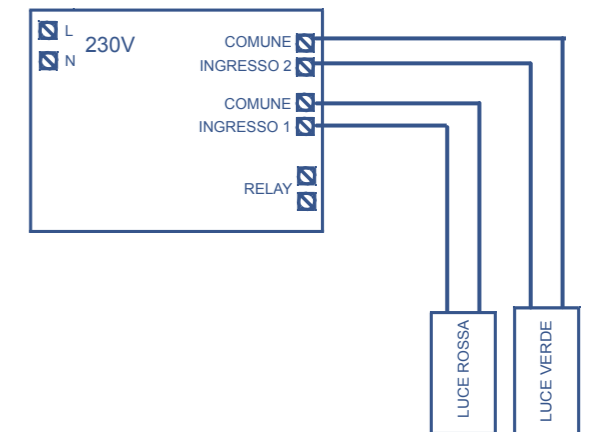
BATHROOM ALARM KIT



kit/udienza/22w

Wireless hearing kit

A traffic light kit designed to assist with access control in surgeries, offices and any other environment requiring privacy. From the external unit, a visual indicator immediately shows whether the system is in standby mode or ready for access; when in standby mode, the indicator is off. When the bell is rung, a buzzer located in a tower on the practice desk sounds; from here, two separate buttons can be used to activate the green or red traffic light outside. The tower is completed by a dual-purpose 10-16A socket for general use.



HEARING KIT

This simple kit makes it easy to call and answer between an external and an internal unit

INDOOR POSITION

Q.TY

8102/WH	T-DESK 4P Flexi module in white aluminium	1
9314	Kinetic button without flexi keycap	2
9324	Wi-Fi-enabled motorised lock actuator	1
14090/15/WH	White pad-printed front cover	1
14090/16/WH	White pad-printed power button cover	1
14072/10WH	220V 50Hz 8VA white doorbell	1
14045/WH	2P+T STD IT 10-16A white safety double socket	1

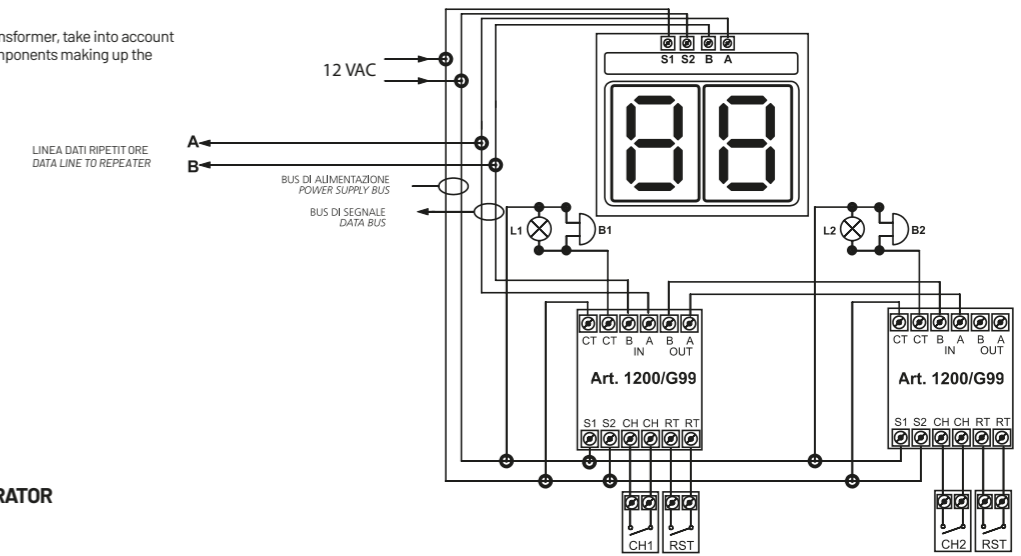
OUTDOOR POSITION

KIT/BAGNO/22W	LAB Brio wireless bathroom kit for disabled users	1
9320	Single kinetic button	1



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

When selecting the power supply transformer, take into account the power consumption of all the components making up the system.



LEGEND - DISPLAY UNIT

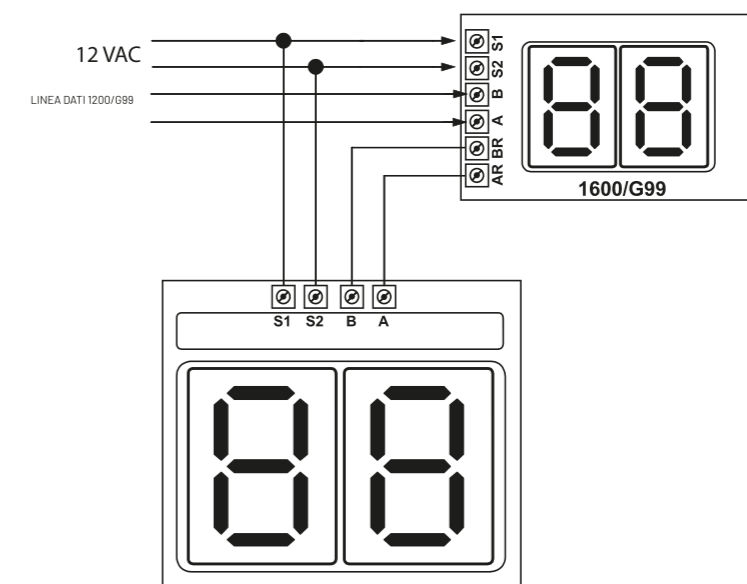
- S1 S2 = power supply 12 VAC
- A B = data transmission line
- AR BR = data line to repeater

LEGEND - ROOM CONCENTRATOR

- S1 S2 = power supply 12 VAC
- 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 that the signal cables are connected correctly.

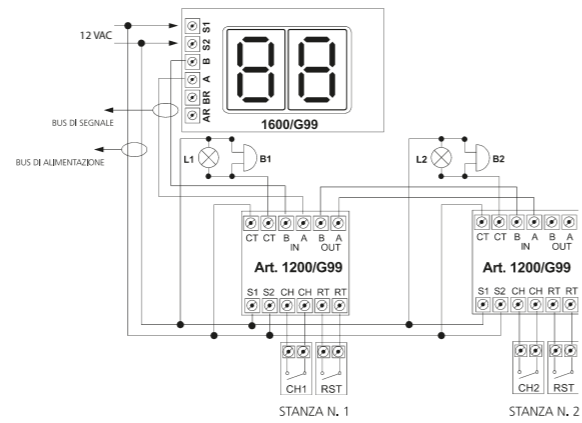
Wiring diagram for the 1600/G99-BIG display unit in repeater mode.



LEGEND - DISPLAY UNIT

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

Wiring diagram for a two-way connection between the digital panel (item no. 1600/G99) and the ROOM CONCENTRATOR (item no. 1200/G99), with direct activation of a 12V indicator light and buzzer – single power supply.



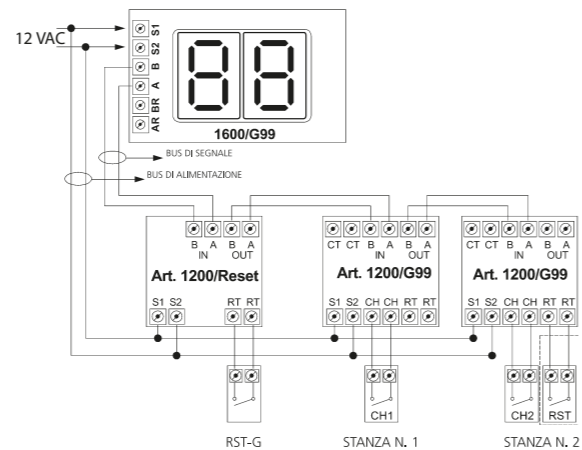
When selecting the power supply transformer, take into account the power consumption of all the components making up the system.

LEGEND

- S1 S2 = power supply 12 VAC
- 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 that the signal cables are connected correctly.

Wiring diagram for a two-way connection between the digital control panel (item 1600/G99) and the ROOM CONCENTRATOR (item 1200/G99), with a general reset unit (item 1200/Reset).



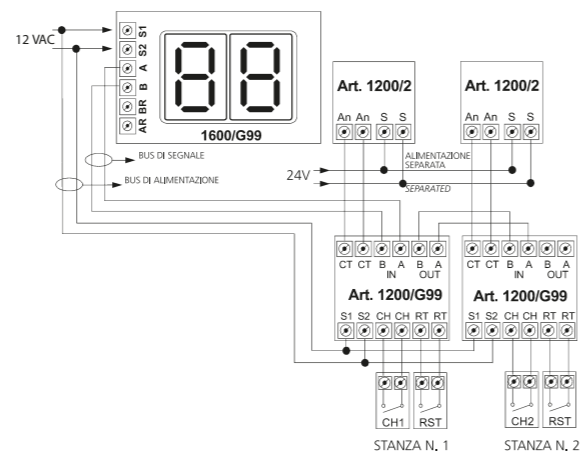
LEGEND

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

N.B.: The final room hub must be fitted with both a call button and a reset button, at least temporarily, until the system has been self-programmed. It can then be removed.

N.B.: Check that the signal cables are connected correctly.

Wiring diagram for a two-way connection between the digital control panel (item 1600/G99) and the ROOM CONCENTRATOR (item 1200/G99), with direct activation of the EMERGENCY SIGNALLING DEVICE (item 1200/2).

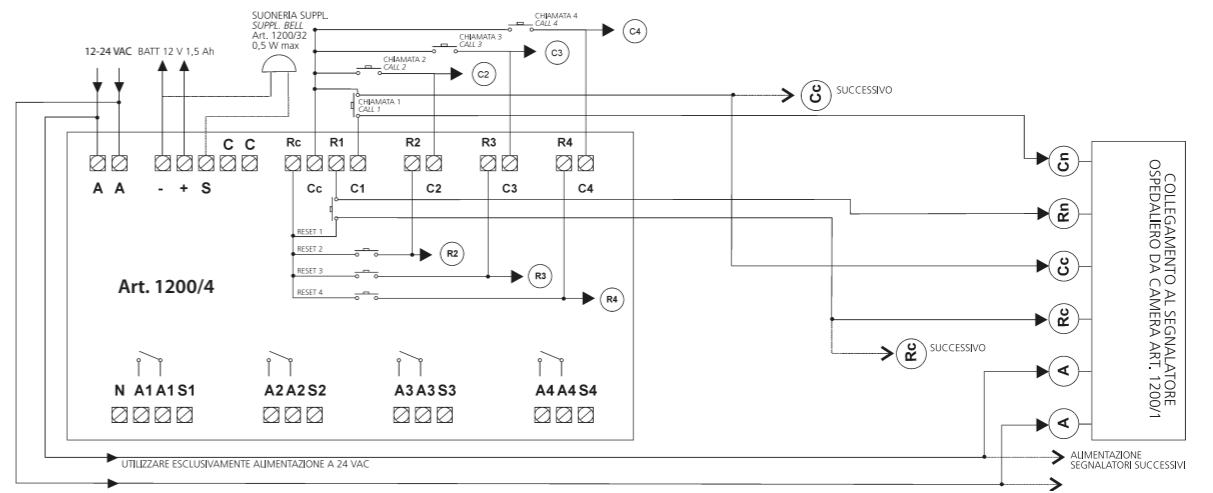


LEGEND

- S1 S2 = power supply 12 VAC
- A B = data transmission line
- AR BR = data line to repeater
- A B (IN) = input data line concentratore
- A B (OUT) = output data line concentratore
- CT CT = N/O contact max 2A
- CH CH = calling button
- RT RT = reset button
- An An = contatto di attivazione

N.B.: Check that the signal cables are connected correctly.

Schematic diagram for LED panel with indicator 1200/1



Legend

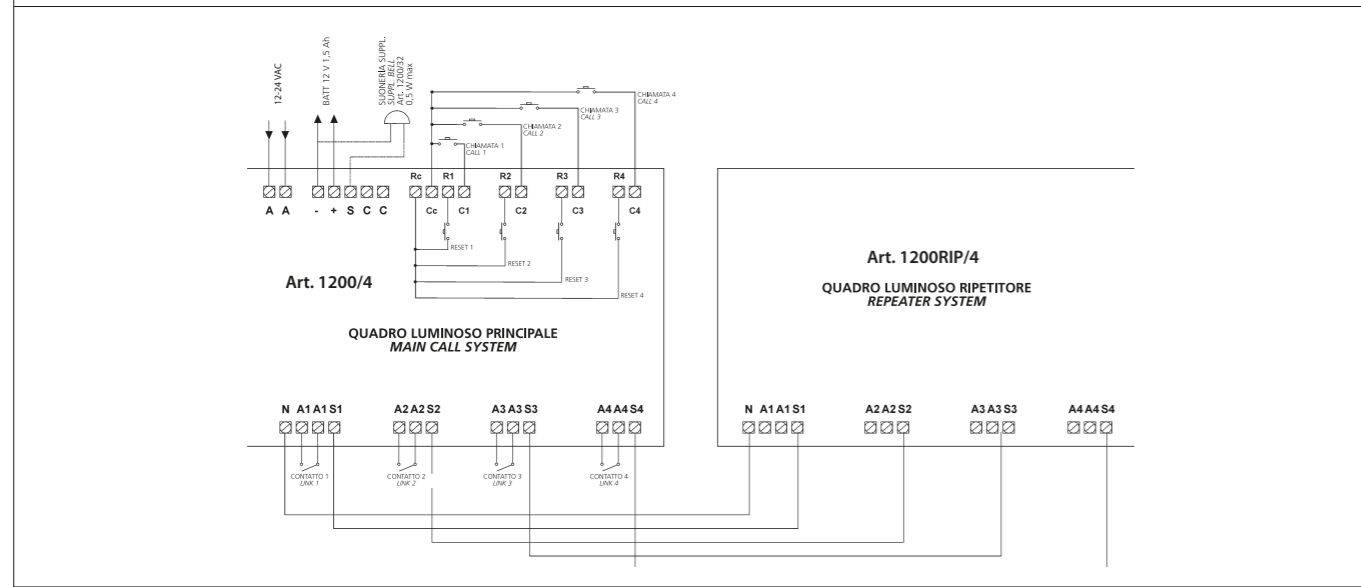
- AA 12-24 VAC power supply
- Batt. Backup battery input
- S Additional buzzer
- C C General reset
- Rc Common single reset
- Cc Common single call
- R1-R4 Individual resets
- C1-C4 Individual calls
- N Negative power supply/Repeater signal
- A1 A1 Auxiliary contact No. 1
- A2 A2 Auxiliary contact No. 2
- A3 A3 Auxiliary contact No. 3
- A4 A4 Auxiliary contact No. 4
- S1 S4 Positive power supply/Repeater signal

Legend

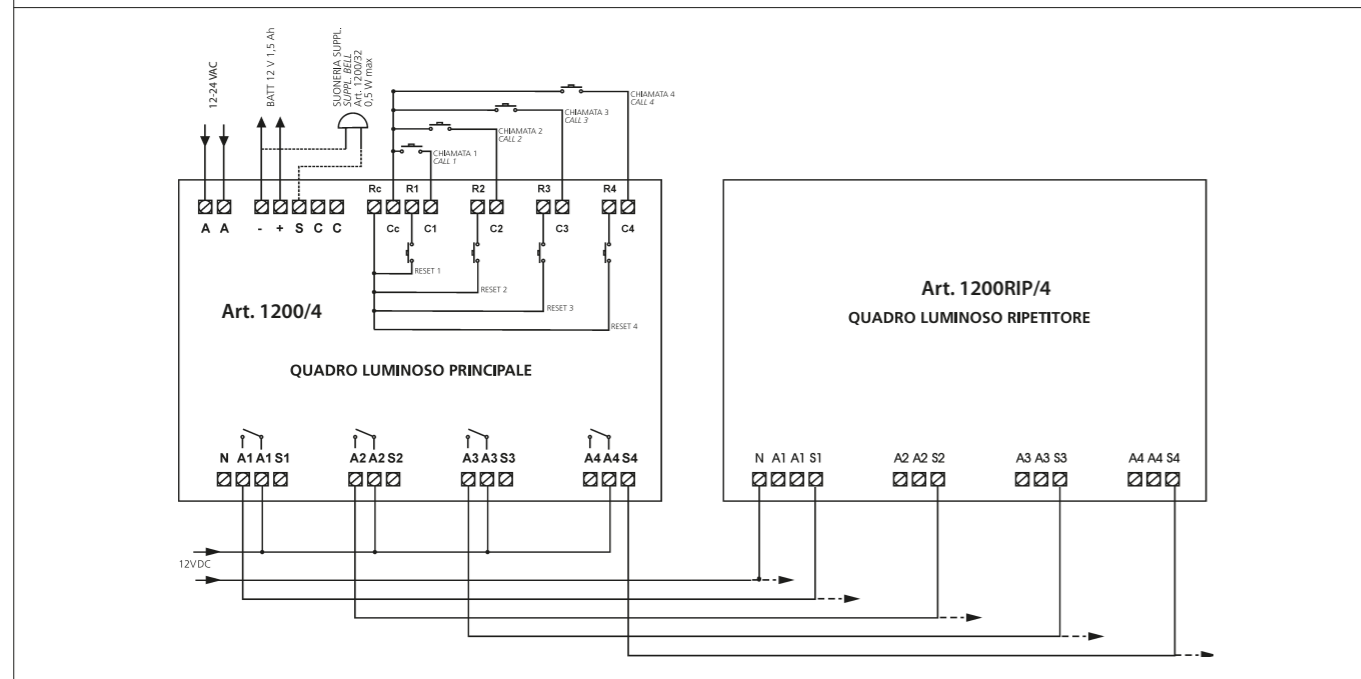
- AA Power supply: 12-24 VAC (use a single transformer)
- Cc Common call terminal
- Cn Call terminal for the corresponding number
- Rc Common reset terminal
- Rn Reset terminal for the corresponding number

WARNING: Only carry out the wiring of the indicators (or any additions to the system) when the mains power is switched off. Failure to comply with this requirement will result in damage to the control panel.

Wiring diagram for connecting an LED panel to a single 1200RIP/4 repeater



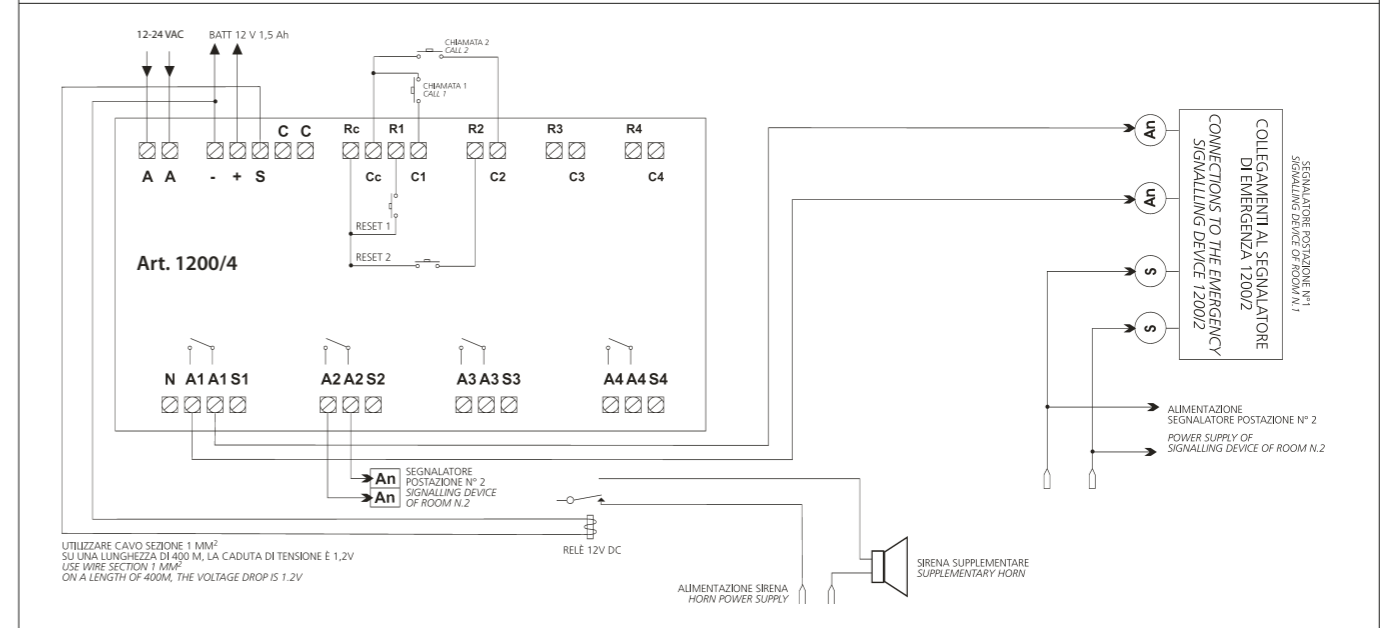
Wiring diagram for connecting an LED panel to two or more 1200RIP/4 repeaters



Legend

AA	12-24 VAC power supply
Batt.	Backup battery input
S	Additional buzzer
CC	General reset
Rc	Common single reset
Cc	Common single call
R1-R4	Individual resets
C1-C4	Individual calls
N	Negative power supply/Repeater signal
A1 A1	Auxiliary contact No. 1
A2 A2	Auxiliary contact No. 2
A3 A3	Auxiliary contact No. 3
A4 A4	Auxiliary contact No. 4
S1 S4	Positive power supply/Repeater signal

Circuit diagram for an LED panel with two 1200/2 indicator lights and an additional siren



System Legend

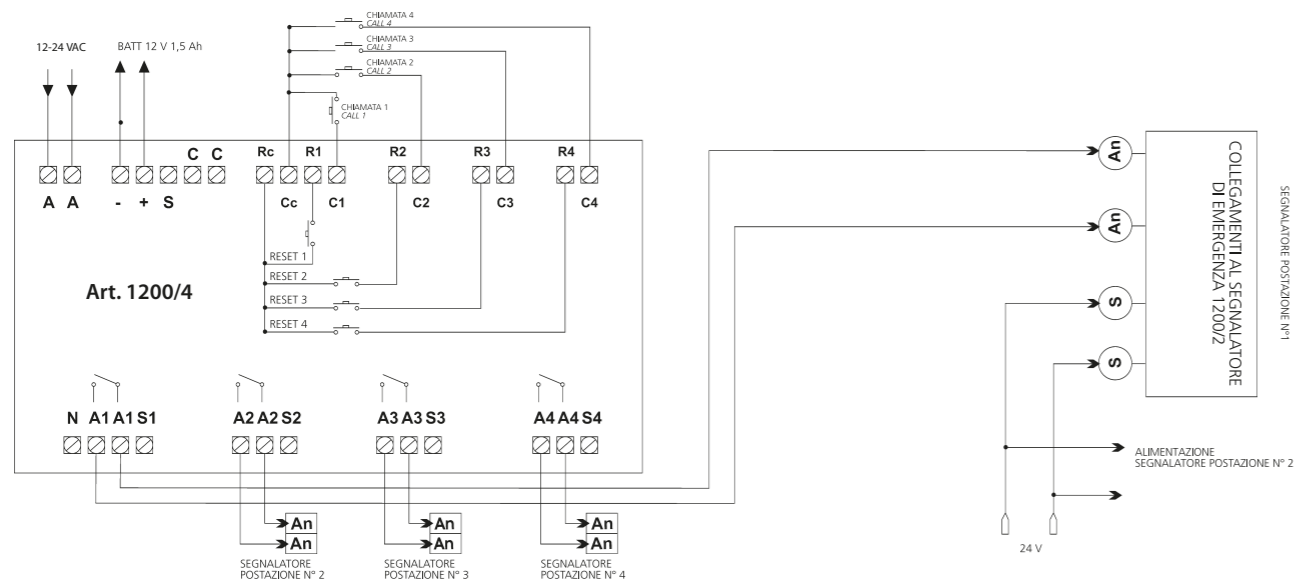
AA	12-24 VAC power supply
Batt.	Backup battery input
S	Additional buzzer
CC	General reset
Rc	Common single reset
Cc	Common single call
R1-R4	Individual resets
C1-C4	Individual calls
N	Negative power supply/Repeater signal
A1 A1	Auxiliary contact No. 1
A2 A2	Auxiliary contact No. 2
A3 A3	Auxiliary contact No. 3
A4 A4	Auxiliary contact No. 4
S1 S4	Positive power supply/Repeater signal

Reporter Legend

S - S	Power supply: 12-24 VAC
An - An	Dry contact input (N/C)

WARNING: Only carry out the wiring of the indicators (or any additions to the system) when the mains power is switched off. Failure to comply with this requirement will result in damage to the control panel.

Schematic for an LED panel connected to one or more 1200/2 indicators



System Legend

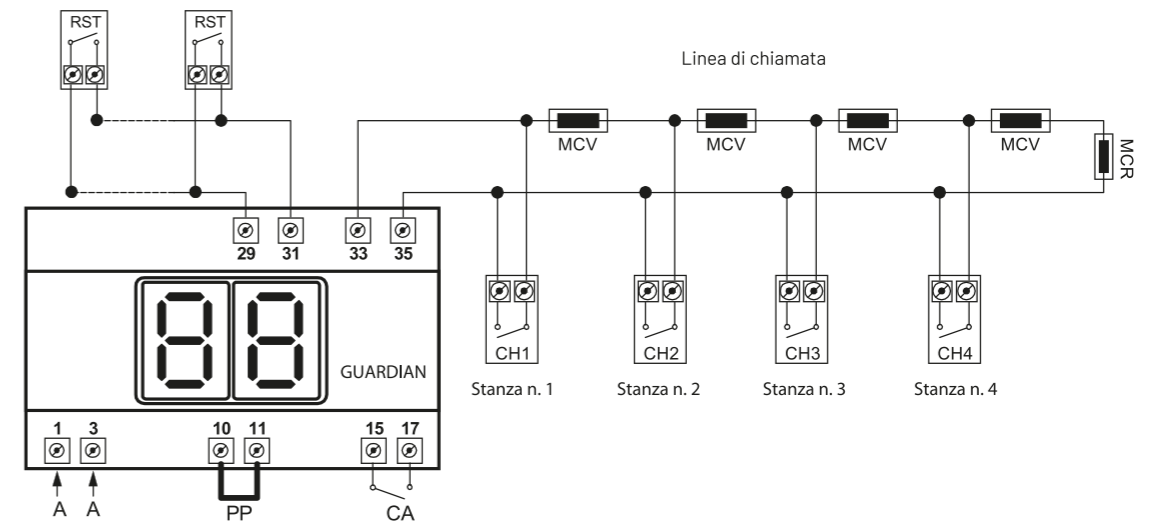
AA	12-24 VAC power supply
Batt.	Backup battery input
S	Additional buzzer
CC	General reset
Rc	Common single reset
Cc	Common single call
R1-R4	Individual resets
C1-C4	Individual calls
N	Negative power supply/Repeater signal
A1 A1	Auxiliary contact No. 1
A2 A2	Auxiliary contact No. 2
A3 A3	Auxiliary contact No. 3
A4 A4	Auxiliary contact No. 4
S1 S4	Positive power supply/Repeater signal

Reporter Legend

S - S	Power supply: 12-24 VAC
An - An	Dry contact input (N/C)

WARNING: Only carry out the wiring of the indicators (or any additions to the system) when the mains power is switched off. Failure to comply with this requirement will result in damage to the control panel.

Guardian 1600/G15 digital panel diagram



System Legend

AA	230V power supply
PP	Battery positive terminal
MCV	Call button (green)
MCR	Close button (red)
CH1-CH4	Call buttons
RST	Reset buttons
CA	Normally open contact

GENERAL CONDITIONS OF SALE

The CUSTOMER accepts all the conditions of sale indicated below at the time of placing the order. The supplies are governed by the following general conditions, except for exceptions resulting from an explicit written agreement. The supplies are not binding unless confirmed by FEB ELETTRICA SRL.

1. Prices

The prices indicated in the current price list are for goods ex factory. Packaging is invoiced at cost, but is included in the price and is not accepted for return. In the event of a change in the prices of the raw material or any cost element, we reserve the right to update the prices without obligation to give prior notice on our part.

2. Orders

To be considered valid, orders must reach us in written form, indicating for each item, code, description and quantity. Order confirmations will be drawn up by FEB Elettrica according to the price list in force at the time of issue of the same and must be approved by the Customer within 3 working days. If nothing is received, they will be considered tacitly approved. The indicated delivery term does not bind the selling Company, which is not required to compensate for any damages due to delays in delivery, nor to partial or total termination of the supply.

3. Packaging

Orders may be accepted with minimum quantities different from those indicated in the catalogue, in which case FEB Elettrica reserves the right to apply a surcharge.

4. Transport

The goods, even if sold carriage paid, always travel at the risk and peril of the Customer, who is required to accept with reservation any packages that are not intact at the time of delivery.

5. Complaints

Any complaints must be communicated within 8 days of receipt of the goods. The complaint does not give the right to suspend payments.

We do not accept returns of goods unless expressly authorized in writing by your office. Returns previously authorized in writing must reach us exclusively carriage paid. The credit for the returned goods will be final after the goods have been taken over by our warehouse and after having verified the quantity and quality of the indicated items.

6. Payments

Payment for the supply is made in the form expressly specified, agreed upon and reported in the order confirmation. Rounding is not accepted. Default Interest: delayed or omitted payments with respect to the agreed conditions, will be subject to legal interest starting from the first day of missed or delayed payment in addition to the charge of any additional charges and without prejudice to further actions for protection.

7. Product information

The information and images in the catalogues and publications are for informational and illustrative purposes only. FEB ELETTRICA s.r.l. reserves the right to vary the technical characteristics of the products. The products must be installed and used in compliance with the technical characteristics according to the safety provisions provided for by current regulations. FEB ELETTRICA SRL is in no way responsible for damage to property or persons resulting from improper use of its products, failure to comply with safety regulations, instructions for use and technical specifications.

8. Warranty conditions

The warranty on the products for the final consumer is intended in accordance with the legislation in force at the time of purchase. FEB ELETTRICA SRL extends said warranty for a total of 5 years from the date of purchase, excluding products relating to the FEB Care line, for which it is 2 years. The consumer may assert these rights against the seller, under the conditions and terms provided by law. In any case, to assert the guarantee, the interested party must report the lack of conformity in writing to the seller within two months from the date of discovery, under penalty of forfeiture. In the event of a lack of conformity of the products sold, the consumer may request the repair or replacement of the same. FEB ELETTRICA SRL undertakes to guarantee the free repair or replacement of the noncompliant good. It is the responsibility of the final consumer to demonstrate the validity of the guarantee, through a delivery document issued by the seller that reports the name of the seller and the date on which the sale was made. The guarantee does not apply in all cases of improper use of the product or in all cases in which the non-conformity is not directly attributable to FEB ELETTRICA SRL.

9. Disputes and liability

The court of Bologna shall have jurisdiction over any dispute.

10. Personal data protection

The information requested by FEB ELETTRICA SRL from buyers is essential for processing the validation of orders, issuing invoices and warranty contracts. FEB ELETTRICA SRL manages all data relating to its customers in accordance with the provisions of the legislation referred to in Legislative Decree of 30 June 2003 number 196, relating to the "code regarding the protection of personal data".

The data controller is the company FEB ELETTRICA SRL located in via Cà Ricchi, 10/12 - 40068 San Lazzaro di Savena (BO).

11. Colours represented

The colour ranges are purely indicative, they may be subject to shade tolerances, technically impossible to eliminate, because they are produced at different times, therefore, not contestable.



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