ANTINTRUSION

ELKRON. THE HI-PROTECTION COMPANY

ELKRON

WIRELESS ALARM SYSTEM

WIRELESS ALARM SYTEM

WL31 TWO-WAY WIRELESS SYSTEM

WIRELESS ALARM SYSTEM

WL31 WIRELESS SYSTEM

WL31 is an evolutionary total two-way wireless communication system. Thanks to Reply Technology®, developed by ELKRON, all devices in the system are transceivers that constantly interface with the alarm unit to verify correct communication status. The exclusive, sophisticated protocol (synchronous, GSM type) ensures maximum security of communication under all conditions. All devices, including the alarm unit, are powered by long-life lithium batteries to ensure maximum autonomy. The system is therefore immune from interferences, power blackouts and can even work in locations where electrical power is not available.

WIRELESS ALARM SYSTEM

WL31 WIRELESS SYSTEM

INNOVATION IN COMMUNICATIONS AND PROTOCOLS

Each system device is provided with an intelligent radio module based on a transceiver with frequency synthesis, miniaturised and among the most sophisticated ones in the world. The module manages all circuits, including RTC (Real Time Clock), modem and antenna, which communicates towards the other apparatuses. The use of frequency band, channels, protocol, as well as any other aspect of communication are managed by the exclusive software which is the core of Reply Technology®.

Two-way radio communication is in narrow band frequency modulation (FSK-NB), splitting the 434 MHz band into a number of selectable channels in order to dynamically use those ones which are less susceptible to interferences, as well as, in general, less noisy. The choice of channels during installation or maintenance steps is very simple and completely automatic, by quickly sweeping the band and choosing unused or less jammed channels.

WL31 system uses a synchronous type communication protocol akin to the one of GSM networks and provided with a developed communication encoding system. A so high communication protection level against simulations and intelligent sabotages results, that WL31 system can also be used in medium to high safety systems. The structural versatility of this protocol also allows for even later extending the range of peripheral units: remote keyboards, outdoors detectors, etc. The innovative features of Reply Technology® and its exclusive protocol provide the control and peripheral units of WL31 system with high radio range and high communication reliability.

RADIO COMMUNICATION

- Thanks to Reply Technology®, all devices communicate bidirectionally
- Transmission in 434 MHz band, with FSK-NB modulation
- Very high immunity to interferences and jams
- Band split into selectable channels
- Self-test checking radio coverage for each channel, with choice of the most suitable channels
- Supervision with programmable time
- Anti-jamming protection
- Radio range over 300 m in free air
- Synchronous protocol with communication protection and authentication:
  - dynamic protocol;
  - protocol variable in time;
  - authentication with 64 bit symmetrical double key (that can be deactivated);
  - crack proof protocol;
  - code reproduction (playback) proof protocol.
- With system/sector (TC radio) on, detectors remain in standby condition:
  - Detectors do not transmit and consequently do not consume without use;
  - Detectors need no timed block after detection.

REPLY®

EXCLUSIVITY

Devices sequential acquisition: after pre-arranging the control unit, just close each tamper contact at a time of those devices which must be entered into the system. Acquisition occurrence will be confirmed by the control unit through acoustic and visual signalling from LCD. Each acquired device, depending on its own typology, receives its own functional and protocol parameters via radio from the control unit. So, at acquisition procedure termination, system immediate use is available.

New tool checking radio communication (Patent Pending): after placing all devices to desired position, the efficiency of radio communication with control unit can be checked in each device.
During the procedure, the system operates with radio signal power intentionally reduced: therefore, check outcome positive in such conditions will assure that with nominal power maximum communication effectiveness is achieved.

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SYSTEM CAPACITY AND STRUCTURE

- WL31 control unit
- Infrared detectors via radio IR30WL/IR31WL
- MM30WL magnetic contact detectors via radio, further provided with two inputs for external auxiliary detectors that are also addressed as single detectors and can be programmed and named in plain language.
- FO31WL smoke optical detectors
- HP30WL outdoors sirens via radio
- TX30WL / TX31WL remote controls via radio (versions with 3 or 5 keys/ Led)
- All apparatuses are supplied by lithium batteries.

System maximum capacity:

- Up to 32 detectors via radio, including IR30WL, IR31WL, FO31WL and MM30WL
- Up to 96 detectors which can be identified as single detectors where all MM30WL detectors with auxiliary inputs are used (one contact plus 2 inputs each)
- Up to 8 remote controls
- Up to 4 external sirens
- System divisible into 4 sectors that can be freely programmed and named in plain language.

FUNCTIONALITY

- Multifunctional control unit separately managing theft, fire, technological events
- Intuitive and tree-structured menus for programming from keyboard in different selectable languages
- System divisible into 4 sectors that can be freely programmed and associated to inputs/outputs
- Up to 18 access codes with max 6 digits each
- Historical memory with max 500 event capacity
- Time-table programmer
- Peripheral devices sequential self-acquisition
- System self-configuration
- Maximum flexibility in associating inputs, outputs and sectors
- Capability to name inputs, outputs, sectors, codes and remote controls "in plain language"
- Capability to program all system peripheral devices via radio allowing for modifying the technical parameters of each peripheral device by operating:
- on control unit keyboard via special menu;
- on remote PC via special ELKRON application software (unlike one-way systems where programming is to be made aboard each device).
- Various possibilities of signalling alarms via: internal siren, external HP30WL sirens. PSTN communicator (STM30), GSM communicator (IMG30).

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Alarm Control Unit

WL31 cod. WL0100211

Wireless control unit with two-way communication.

- It manages burglar, fire and system failure events separately.
- Up to 4 freely programmable partitions which can be associated to inputs and outputs.
- Up to 18 access codes (up to 6 digits long).
- Event log capable of storing up to 500 events.
- Programmable timer.
- Sequential self-acquisition of peripherals devices.
- System self-configuration.
- Optional communicator modules (PSTN and GSM) for:
- remote system management using special
- ELKRON modules, various alarm
- transmission methods:
- voice, numeric protocols, modem, SMS messages.
- Built-in keypad and LCD: 21 backlit buttons (2 line x 16 alphanumeric characters). Inputs, outputs, sectors, codes and remote control can be named by the user.
- Wired inputs and outputs: 2 PGM relay outputs, 2 PGM wired inputs.
- I/O serial port for PC connection; it can be equipped with: RS232 serial module, USB "slave" serial module.
- Optional memory card connection for system data backup to removable medium.
- High intensity internal siren with programmable functions.
- Cabinet tamper for opening and removal.
- Two 3.6V high capacity lithium thionyl chloride batteries (included) with smart energy management function.
- Auxiliary main power option (PS30).
- Radio coverage: up to 500 m line of sight
- Dimensions (H x W x D): 345 x 240 x 79 mm.

WL31 / WL31TG

2° level

WL31TG cod. WL0200211

- Same as WL31 but with built-in communicator module: PSTN, numeric protocols and voice synthesys.

Control Units

TX31WL/5 cod. TX3500211

Fully programmable five-button remote control

- Remote control with 5 keys and relating two-colour LEDS, totally managed by a microprocessor. All the operations associated with the keys (up totwo per key) and with the LEDS can be programmed from the WL31 control panel. Each key can also be personalised through coloured labels to make the choice of the associated control easier and the two-colour LEDS supply a direct visual answer to the controls. When it is acquired by the control panel, it is configured with pre-set parameters.
- The radio range is approx. 150 meters in open air and the communications with the WL31 control panel are done using the Reply Technology®. Power is supplied by one 3V long lasting lithium battery which can be replaced by the user.

TX31WL/5

2° level

WIRELESS ALARM SYSTEM

WL31 WIRELESS SYSTEM

Control Units

KP30WL cod. KP3700211

ABS backlit bidirectional wireless keypad

- KP30WL is a keyboard for internal areas, totally managed by a microprocessor, which is equipped with 11 light signals, 12 alphanumeric keys and 5 "Function" keys for direct controls. These can be personalized with labels to make easier and evident the choice of the allocated control. All these keyboard elements can be radio programmed from the control panel.
- Signals are: controls, alterations, damages, system status, open and excluded Inputs, maintenance and remote management operations.
- The radio range of the keyboard is approx. 300 meters in open air and communications with the control panel are done using the Reply Technology®. The keyboard is equipped with protection from opening and from removal. When it is acquired by the control panel, it is configured with pre-set parameters.
- Power is supplied by two 3V lithium batteries which under normal condition of use, enable up to about 2 years of life.
- The keyboard automatically transmits an alarm of expiring batteries. To reduce energy consumption to the minimum, the keyboard has a timed back lighting switch, through a specific twilight detector. It is automatically excluded when there is enough environmental light.
- Degree IP40 IK04.
- Dimensions (H x W x D): 138 x 106 x 35 mm.

KP30WL

2° level

Communication

STM30 cod. CT5010211

PSTN communicator module

- STM30 is an optional telephone communicator which works as interface between the control panel and the fixed telephone network (PSTN) for modem and DTMF communications, using vocal pre-recorded messages or a numeric protocol (for example ADEMCO®, IDP® etc.).
- Note: the communicator module is equipped with headphones to register/ listen to the vocal messages.

IMG30 cod. CT5110111

GSM Dual Band module equipped with aerial

- IMG30 is a GSM Dual Band module, equipped with aerial, which enables you to use the mobile phone network instead of or as an integration of the fixed one, even offering the possibility to communicate via SMS messages.
- This can only be used if there is an STM30 module. SIM card is not included.

HI-CONNECT cod. SW2400111

- Software for ELKRON control panel configuration, user friendly and easy to understand, working in Windows™ operating environment. Through this software it is possible to record and classify clients, systems and operators. In addition, it is possible to remotely program alarm control panels, acquire the resident configuration, check it, change it and then load it again in the control panel (up/downloading), acquire the system event memory, check in real time the system state, the input and output state, the battery and fuse state. Integrated function for technical alarm reception (modem needed).

MODEM cod. CT3900113

External modem to be connected with the PC for remote management.

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Detectors

IR30WL cod. IR3B00211

PIR detector, two-way wireless communication, with patented trifunctional emisferic lens.

- Three selectable coverage field: max range 18m (volumetric lens)
- Entirely microprocessor controlled
- Dual Piroelectric sensor
- Programmable pulse counter
- Programmable pulse counter
- Two-way line of sight radio coverage: up to 300 m
- Lithium battery powered (3V, included).
- Dimensions (H x W x D): 138 x 74 x 53 mm.

IR30WL

2° level

IRA31WL cod. IR5B00211

Passive infrared two-way wireless communication detector with Fresnel cylindrical lens.

- Range: 15 m with volumetric lens. Coverage: 108°.
- Entirely microprocessor-controlled.
- DUAL pyroelectric sensor.
- Programmable pulse counter.
- Diagnostic and TEST LEDs.
- Two-way line of sight radio coverage: up to 300 m
- Lithium battery powered (3V, included).
- Dimensions (H x W x D): 124 x 70 x 54 mm

IRA31WL cod. IR8B00211

Passive Infrared Detector with PET Immunity, two-way wireless communication and Fresnel cylindrical lens.

- Range: 15 m with volumetric lens. Coverage 108°.
- Pet immunity (35 kg max).
- Entirely microprocessor-controlled.
- DUAL pyroelectric sensor.
- Programmable pulse counter.
- Diagnostic and TEST LEDs.
- Two-way line of sight radio coverage: up to 300 m.
- Lithium battery powered (3V, included).
- Dimensions (H x W x D): 124 x 70 x 54 mm.

IRA31WL / IRA31WL/P

2° level

MM30WL cod. MM6700211

Magnetic contact, two-way wireless communication, entirely microprocessor-controlled

- Alarm and test led
- Two external auxiliary detector inputs (addressable and programmable from the alarm unit): rolling blinds detector, inertia detector, generic alarm contact
- Tamper protection for opening and removal
- Smart magnet holder: possibility to locate the magnet at 3 different positions inside the housing to compensate for misalignment of fixtures
- Two-way line of sight radio coverage: up to 500 m
- Lithium battery powered (3V, included).
- Dimensions (H x W x D): 120x30x27 mm
- Version in BROWN - MM30WL-BR cod. MM6800211

MM30WL

1° level

WIRELESS ALARM SYSTEM

WL31 WIRELESS SYSTEM

Detectors

F031WL cod.SD4000121

Optical smoke detector, two-way radio communication, conforming to EN14604 (smoke alarm).

- It is used both in household and industrial (shops, offices, etc.) environments, thanks to its operation flexibility: self-contained by means of optic-acoustic signalling on the sensor; integrated into the WL31 system to take advantage of all the advantages of the Reply Technology® radio communication.
- Fully microprocessor-based control.
- Radio range: over 250 m
- Coverage: 40 square m
- Alarm, failure and "existence" signalling LEDs.
- Device TEST and alarm reset button.
- Integrated, high-rating buzzer (85 dB (A) @ 3 m).
- Smoke threshold self-adjustment in order to avoid improper alarms.
- Dust immunity and smoke sensitivity level adjustment.
- Powered by 2 long-life lithium/manganese dioxide batteries (3 V), type: CR123A (supplied with the unit) – Formats: CR17345 (IEC), 5018LC (ANSI)
- Dimensions: Ø = 136, h = 68 mm

F031WL

Sounder

HP30WL cod. HP8100111

External sounder, two-way wireless communication, polycarbonate box with internal steel crushproof cage

- Entirely microprocessor controlled
- High acoustic power: 100 dB(A) at 3 m
- Sounds modes controlled by alarm unit: break-in alarm, fire alarm, system state tones
- Strobe with high efficiency LED panel indicating: alarms, tests, system state
- Tamper protection for opening and removal
- Electronics protected in plastic casing with IP44 degree of protection
- Radio coverage: up to 300 m line of sight
- Powered by two 3.6V high capacity lithium batteries (included) with smart energy management function
- Dimensions (H x W x D): 265 x 210 x 65 mm.

HP30WL

Accessories

ITUSB cod. MP9H10111

- USB interface module for the WL31 control unit connection to a local PC

MU30 cod. MU2910111

- Memory card for data system backup

KIT FISSAGGIO cod. KT4800111

- Battery fixing kit for IMG30.

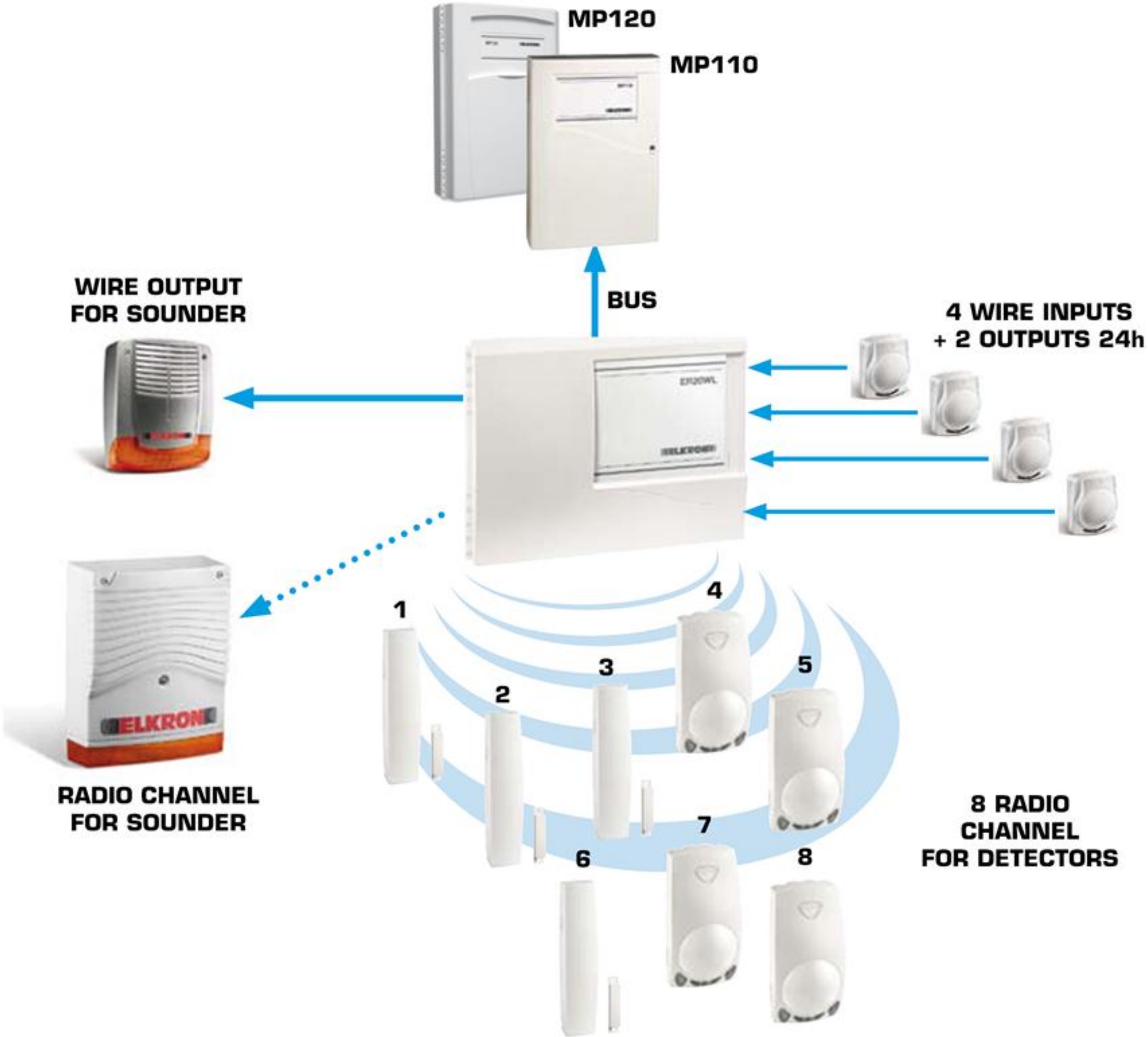
WL20 WIRELESS EXTENSION

WIRELESS ALARM SYSTEM

WL20 WIRELESS EXTENSION

THE SYSTEM TO COMMUNICATE WITH AND WITHOUT WIRE

WL20 system was created to make Elkron bus systems hybrid(wire and wireless). This means that it is possible to make systems that can connect wire and wireless together. It is a significant advantage that permits to add sensors, contacts and sirens in an existing plant, without intervening on the wall to make new connections. The wireless extension is obtained by directly connecting to the control unit bus MP110, MP120 and MP200 the interface ER20WL and apart from each providing input and output wires, it can manage through radio up to 48 sensors (between infrared and contacts) plus an outdoor siren.



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WL20 WIRELESS EXTENSION

Wireless interface

ER20WL R/T cod. WL1210113

Wireless extension for hybrid systems

- The ER20WL interface works with bus control units (MP110, MP120 and MP200) acting as wire concentrators. The interface is powered by the bus, locally manages wire and radio peripherals and constantly exchanges respective status and alarm information with the control unit. Radio extension management is perfectly integrated with the rest of the system from all points of view: enabling signals, sector association, event log, remote management, etc.
- Reception radio channels: 8
- Linkable detectors: 6 for each channel
- 1 transmission radio channel for controlling HP20WL wireless sounder
- Comunicazione in FSK a due canali nella banda dei 434 MHz.
- Two-channel FSK communication in 434 MHz band
- Maximum free field range: 500 m
- Complete system supervision: every 32 minutes
- Test mode
- Diagnostic and status signals by means of LEDs and displays
- Signals provided by each radio channel: alarm, tamper, low battery, radio anomaly, supervisor not OK
- Wire inputs: 4 entirely programmable
- 24h inputs: 2
- Electric outputs: 3 entirely programmable
- Relay outputs: 1
- Dimensions (H x W x D): 138 x 74 x 53 mm.

ER20WL R/T

ER20WL R cod. WL1310113

- Same as ER20WL R/T but with only reception channels (without transmission radio channel).

WIRELESS ALARM SYSTEM

WL20 WIRELESS EXTENSION

Detectors

IR20WL cod. IR2B00113

Passive infrared radio sensor with Extravision series patented three-function lens

- Range: 18 m (volumetric lens)
  15 m (curtain lens)
  25 m (long range lens)
- Copertura: 90° (volumetric lens)
  6° (curtain lens)
  6° (long range lens)
- Sensitive zones: 20 on 3 levels + 2 / creep-zone (wide angle lens)
  1 on 1 levels + 1 / creep-zone (curtain lens)
  7 on 5 levels + 1 per creep-zone (long range lens)
- CREEP-ZONE detection
- Free field radio range up to 500
- Pulse counter
- Walk test
- Cut-off time: 2 min
- Opening and removal self protection
- Optional self-protected joint
- Battery charge check
- Lithium battery: 3 V – 1,3 Ah included
- Dimensions (H x L x P) : 138 x 74 x 53 mm.

IR20WL

MM20WL cod. MM4300113

Radio transmitter with opening detector for protecting accesses (doors and windows)

- Free field radio range up to 500 m
- Internal reed contact
- External contact input
- Rope contact input for rolling shutters
- Pulse counter
- Opening and removal self protection
- Battery charge check
- Lithium battery 3V - 1,3 Ah provided

MM20WL

Sounder

HP20WL cod. HP8000113

- **Wireless outdoor siren in a high-resistance polycarbonate box, with shatterproof protection cage and flasher.**
- Free field radio range up to 500 m
- Sound output: 104 dB at 3 m
- Polycarbonate box
- Shatter-proof, drill-proof steel cage
- Battery charge check
- Opening and removal self protection
- Ring count programming
- Two way radio communication
- Lithium thionyl chloride battery 7,2V - 13 Ah provided
- Dimensions (H x W x D): 265 x 210 x 65 mm.

HP20WL