Ksenia
security innovation

catalogue 2010/2011

THE INTRUSION CONTROL PANELS

lares™

The new dimension of Security

The Intrusion Control Panels series **lares™**

product code **KSI1000016.300 (*.310*) 1 lares16 mother board only** *(or complete with metal cabinet)*
KSI1100016.300 (*.310*) 1 lares16-IP mother board only *(or complete with metal cabinet)*
KSI1000048.300 (*.310*) 1 lares48 mother board only *(or complete with metal cabinet)*
KSI1100048.300 (*.310*) 1 lares48-IP mother board only *(or complete with metal cabinet)*
KSI1100128.300 (*.310*) 1 lares128-IP mother board only *(or complete with metal cabinet)*

lares™ is the name of the newest generation of Professional Control Panels.
Calling them simply "Intrusion" Control Panels is truly like as under estimating their huge potential given that their extra-ordinary fast and intelligent system is in a position to embrace all other branches of Security and to manage up to very complex installation in terms of Home Automation & Home Integration.
The lares Control Panels are available in 3 different sizes and 5 different versions expandable from 16 to 128 inputs, therefore positioned to cover all applications from the small residential/ business to commercial.

The unique and powerful capabilities of the **lares™** Control Panel Family are mainly related to their modularity and versatility: even after the installation of a small system it is possible, thanks to the great range of available peripherals and to the IP connection, not only to fully satisfy the current requirements but also to easily follow-up with any further future need of expansion, both in terms of intrusion than in terms of TVCC or access control and , more in general, to any domotic applications.
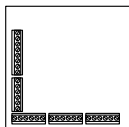The 5 Control Panels types currently available are the following:
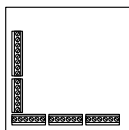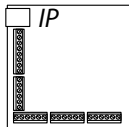
lares16   lares16 IP
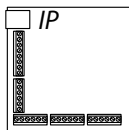
lares16: the smallest, but already equipped with 10 zones onboard expandable to 16

l**ares16-IP**: like as the above but with **integrated ethernet interface**
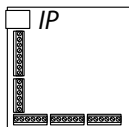
lares48   lares48 IP

lares48: the panel for the mid-residential, 10 zones onboard expandable to 48

lares48-IP: like as the above but with **integrated ethernet interface**

lares128 IP

lares128-IP: the panel for all needs, 10 zones onboard up to 128 with **integrated ethernet interface**

The System's Heart

The heart of the **lares system** is clearly the **mother board**, to be located inside a metal cabinet (255x295x80mm) together with the switching power supply, the back-up Battery and an **auxi** expansion module (or if desired the **pontis** PSTN Interface).

The mother board is equipped with 6 inputs, 4 programmable inputs/outputs, 1 relay output 1A rated, the **KS-BUS Interface for linking** all Ksenia Security's pheriperals, the USB Communication Port, the Ethernet Port (for IP version only), the power circuitry to charge, control and protect the Battery.

All **lares** Control Panels are highly reliable and compliant to the European Standard EN50131-3 grade 3.

lares™ mother-board

metal cabinet for lares™ Control Panels

System Expansion: **the KS-BUS Peripherals**

By means of the 4 wires **KS-BUS**, all Ksenia Security Peripherals can be linked to the mother board enabling the system to be flexible and basically tailored in accordance to the user needs.

All BUS Peripherals have no need to be addressed: lares recognizes them automatically and assigns to them the relevant address, while thanks to a 6 digits serial number can be then identified by the installer.   A great simplification, both for small installation where basically there is nothing to be done and for big installation where there is no more need to set-up patiently a lot of dip-switches to assign all bus peripherals

Here are in short all peripherals -with their main features- which can be linked to the KS-BUS (for more information regarding each single product please refer to the Data Sheet available on the web also for download):

ergo: ultra-slim LCD Keypad (16x2) with Cap-Sense Tech.: it is a simple and unique interfacing tool between the Panel and the user, thanks to ergo it is possible to monitor the system in all its functionalities. Ergo also includes a proximity reader which is compatible with the NFC Technology in order to manage the system by transponder tags or smart phones as well as an audio digital system to take advantage of the voice menu and perform audio verification.

auxi: expansion module with 5 programmable inputs/outputs. It allows to increase the number of inputs/outputs for both the Control Panel and gemino Communicator in the expandable version.

gemino: the GSM/GPRS Communicator. Unprecedented reliability thanks to the dual SIM and dual Antenna's management algorithm. It allows to send voice messages, sms and e-mail or to manage the system by means of a guided voice menu or through sms command. It can send alarm signals to the CMS with the Contact ID. At last it can be used to program/manage the Control Panel via GPRS. **It does not require an external voice module since already integrated in the Panel.** It can be employed as alternative or together with the **pontis** PSTN Interface.

pontis: the PSTN interface module. It allows to transmit voice messages through the PSTN line or to manage the system by means of a guided voice menu. It can be utilized to send Alarm signal to the Central Monitoring Stations with the Contact ID or SIA protocols. At last it can program and manage the Control Panel through a standard modem with a communication speed up 14.400bps. It can also be employed as alternative or in combination with **gemino**. It does not require external modules, since already integrated in the Control Panel.

imago: outdoor siren, self-powered and with low power consumption, fully controllable by BUS. On top of the power LED to show the alarm signal, it's equipped with two LEDs for auxiliary signaling like for instance system off /system on. Thanks to a precise temperature sensor, it allows the KP to show the outside Temperature.

radius: indoor siren, fully controllable by BUS. On top of signaling Alarm events, it is equipped with a powerful LED light in order to act as Emergency Light in case of black-out. Thanks to a precise temperature sensor, it allows the KP to show the room Temperature.
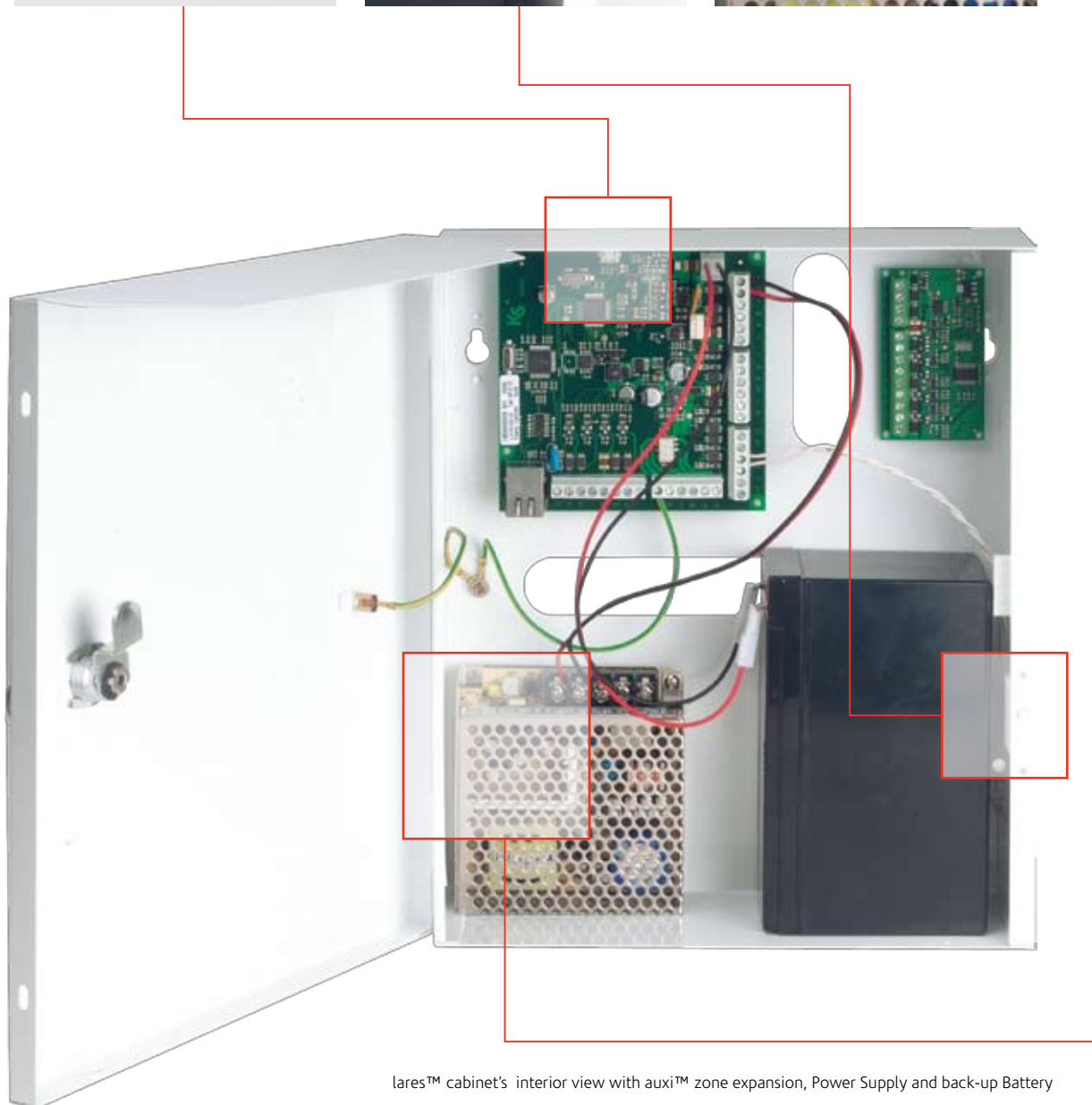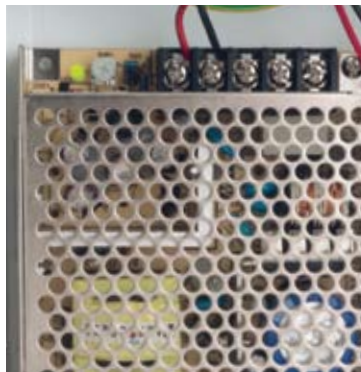
detail of the Ethernet Port
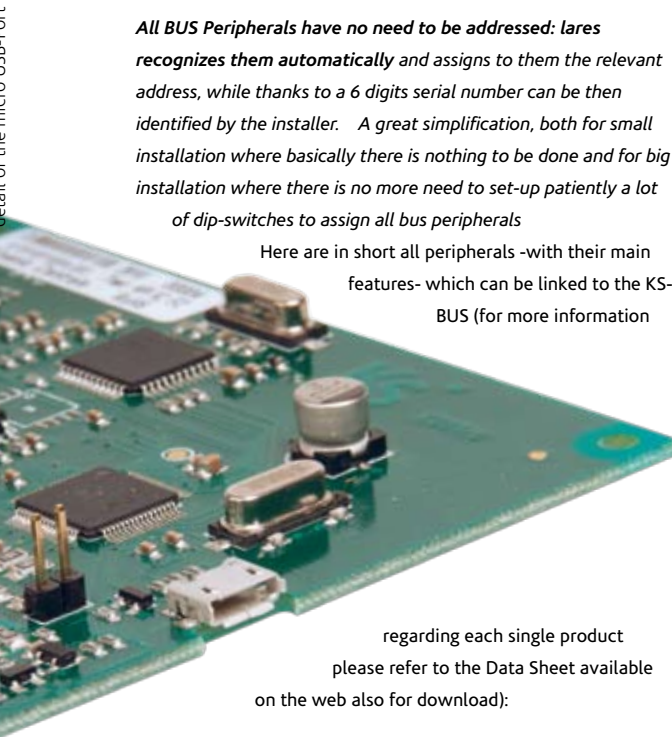
micro USB opening protected by the metal cabinet's door

microswitch tamper to signal cabinet opening

switching power supply P/N KSI7101217.000

lares™ cabinet's interior view with auxi™ zone expansion, Power Supply and back-up Battery

Main function's description of **lares™**

Inputs Section

Each Panel is availble with 6 programmable inputs and 4 terminals that can be configured as inputs or outputs. *In practice, each Panel is already having 10 inputs onboard*. Additionally, a specific connector is available to link all protections. Depending on the model, the number of inputs can be increased up to a max. of 128. Additionally a dedicated connector is available for linking all Control Panel protections - either against cabinet opening or wall-removal. Depending on the model, the inputs number can be increased up to a max. of 128. No matter if they are inputs on the Panel or on the expansion module **auxi**, **each input is flexible and programmable according to the specific need**: 5 different types of balance (NC, NA, EOL, 2EOL and 3EOL); direct connection of shutter or inertial sensors; system answer (24h, immediate, delayed entry, delayed exit, entry and exit path, last exit); command functions (partition arming and disarming, calls block, alarms reset) and much more functions. In case of path zones , is it possible and extremely easy to decide if they have to respect or not a violation sequence, either in entry and in exit, and also which shall be the last zone in the path, so as to activate the system once the path will be completed, even when the time has not expired yet. The inputs can also be grouped in AND groups, in order to activate an alarm or whatever system event only when all zones belonging to the same group have been violated. Furthermore, even in this case it is possible to easily decide if they have to be violated in sequence or not.

Outputs Section

The Control Panel mother board is equipped with a relay programmable output , 1 A rated, supervised, 1 dry contact and 1 +12V switch, and with 4 OC outputs, 500mA each. Depending on the model, the outputs number can be increased up to a max. of 64. *Either outputs of the Control Panels or of the expansion module auxi, each of them is programmable according to the need*: polarity (normally open or normally closed); functioning (bistable o monostable); activation times (time ON and time OFF). The outputs can be freely associated to the Panel events or manually activated by the Keypad or remotely .

Partitions

Each input can be freely associated to one or more partitions (or groups) to simplify its management; depending on the model partitions can be 8, 12 or 20 (see table at the last page). For each partition is possible to program the times (entry, exit, pre-warning, patrol) on top of defining the different insertion modes.

USB Interface

Each Control Panel is provided with an "dual role" USB, which can be directly linked to the PC for programming the Panel or visualize its status. The same Port can be very conveniently used to upload the program directly from a flash memory with no need of a PC.

Ethernet Connectivity

The Control Panel **versions lares16-IP, lares48-IP and lares128-IP** have already integrated onboard the **ethernet interface**: *a solution which enables to manage the Control Panel in a very easy manner and from any part of the world thanks to any internet connection*. **It is possible to program the system, to perform all available management operations thanks to the integrated WEB-SERVER, which enables any internet browser to be connected to the Control Panel. The system has got a "Triple Protection Data Security System"**: all remote operations require a *secret PIN*, the data travel on the net with an *encrypted protocol* and at last is possible *to disable in any moment the entire remote access or to limit its functionalities* (for istance just to visualize the system status in real time or to read the event log only).

Voice Messages

The Control Panels allows up to 200 different voice messages to be recorded, they allow to promptly advise the user in case of alarm or malfunctioning (with a customized message for each zone) or to guide the user in the various system functions. The voice messages are then managed by **gemino** (if sent via GSM), **pontis** (in case of PSTN signals) or reproduced locally on the **ergo** Keypad. They can be recorded in many different ways:
• **directly from the microphone of ergo**

- **from your PC mic**
- **importing wave files**
- **two text-to speech (TTS) engines with vocal synthesis**

Both the TTS engines are available through the programming/ control software **basis**: one of them is available with free license, the second one is the loquendo(*) library, a top quality engine, and is available with a "one-off" payment to the installer.

System Control from remote

The system can be easily managed by means of the following available options:
- **through the integrated Web-Server**
- **simply by calling the Panel via GSM or PSTN thanks to the guided menu, or sending SMS and emails**
- **or linking with a standard modem by taking advantage of the pontis PSTN module**

Power Supply Control

lares controls both the primary power voltage and the Battery voltage. Periodically it verifies the efficiency status of the Battery and inform us in case of issues. In case of prolonged absence of power, lares is equipped with the function "battery separation" to prevent deep discharges, but it is not a simple protection: **the Control Panel itself disconnects the Battery and before to "self-switch-off ", carries on all necessary controls, memorizes date and time of the switch-off for possible controls and then finally carries on a Switch-off immune of any issues**. *In this case even the involved sirens will not get into alarm, avoiding useless disturbs.*
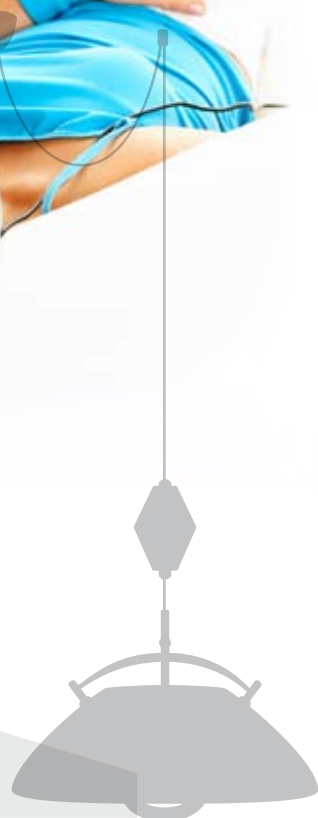
(*) *Loquendo® TTS is a registrered trade mark of Loquendo® S.p.A*

Loquendo

lares™ and the Domotics

Even on this, the lares series is unique . **Not only its platform integrates very easily all main Home Integration & Automation's logic, but it becomes the protagonist, being perfectly in a position to manage, autonomously and with no need of PC or complicated programs, the domotics applications that you've ever dreamed for your Home.**

These Home Automation possibilities of **lares** include, **on top of the intrusion**, the option to program and manage *(even remotely for the IP)* the following:

• lightning
• heating and conditioning system
• irrigation system
• automations and load controls
• fire and suppression system
• audio/video entertainment
• audio e video Surveillance
• access control

The I/O modules to be utilized to program and to manage the different loads are the same **auxi** modules required to expand the Control Panel zones or the programmable inputs of **gemino** and thanks to their level of miniaturization and the newest auto-learning system with the serial code can be easily hidden inside a common DIN box already located into the wall for other purposes (e.g. sockets or circuit-breakers).

The **domotics management system is strictly related to the concept of scenario**: every time there is a system event (it could be a keypad command, a code insertion, a zone violation, the combination of more customized events, etc.), the system enables the possibility to program by means of the following parameters the desired scenario:

• arming / disarming partition
• arming /disarming outputs (up to 8 for each scenario)
• riproduction of a voice message
• activation of a voice communicator
• email transmission
• SMS transmission
• timer activation

By means of the ergo Keypad is very simple to manage the entire system: for each Keypad up to 10 different scenarios can be activated. The scenarios can be easily accessible by touching the relevant button (to be activate by the installer-macro function) or only after a valid user code entry. **But another important news is the retention (memorisation) of all repeated scenarios**, for example if from a Keypad we activate more frequently a specific scenario, the system will automatically propose us the same at first, allowing in any case

to utilize the circular scroll to check all other available scenarios to be activated. Another peculiarity of the **lares** series in order to simplify the adotion of the system in Domotics is to be in a position to **memorize all usual scenarios and repropose them automatically**. For example, using the Keypad to select different scenarios or in order to arm and disarm the system or a specific partition, lares will propose automatically the next logic scenario (for example to disarm if system and partition are armed or vice-versa). *All this with the aim to activate the desired scenario with no need to press any additional button.* It is enough to entry your valid PIN, through the Keypad, through a proxy tag or your smart phone utilizing the NFC technology.

Firmware Update

Both the firmware of the Control Panel and the one of all peripherals linked through the KS-BUS can be easily updated in few seconds. There is neither the need to special connection nor to insert jumpers or switch-off the system or its peripherals: the firmware can be downloaded directly to the Panel thanks to its USB Port (both from PC and from flash-memory upload) or from remote thanks to the Ethernet Communication (if activated by the user).

The update is automatic and meant to be absolutely secure, all Ksenia Security's devices are equipped with a unique Technology for the Firmware update: the dual-firmware-mode. *One copy of the new FW is saved on the peripheral (Control Panel) which has to be updated, once the copy is terminated (which can be done during the normal function of the system), the peripheral verifies the new FW by means of a CRC (cyclic-redundancy-check): if it is correct it will start to use the new FW, otherwise will continue to use the old-one. If during the switch from a FW version to the other the power would be missing, no worries, both FW will remain available, Only when the Peripheral starts to utilize the new FW, the old-one will be finally and the panel is ready to a new future update. This basically means that all Ksenia Security Systems are back-ward compatible, new characteristics or functions available in the future could be added even on pre-existing systems with no need to modify or change the existing peripherals.*

Future Devices

This special management update ensures that, once a **lares** Control Panel is installed, it will be compatible with all future *Ksenia Security devices*, with no need of substitute the control panel but simply by updating the firmware.

Intrusion Control Panels series **lares™**

Main features:	lares16	lares16-IP	lares48	lares48-IP	lares128-IP
HARDWARE					
Max. nr. of inputs	16	16	48	48	128
Onboard inputs (fixed + programmable)	6+4	6+4	6+4	6+4	6+4
Max. number of outputs (OC + relay)	8+1	8+1	24+1	24+1	64+1
Ethernet connectivity management	NO	YES	NO	YES	YES
Metal cabinet 255x295x80mm	YES	YES	YES	YES	YES
Back-up Battery	12V-7Ah	12V-7Ah	12V-7Ah	12V-7Ah	12V-7Ah
Switching Power Supply	1,7A o 3A	1,7A o 3A	1,7A o 3A	1,7A o 3A	1,7A o 3A
USB Port "on-the-go"	YES	YES	YES	YES	YES
auxi expansion module	4	4	24	24	40
LCD ergo Keypad	8	8	12	12	20
GSM Communicator gemino	YES	YES	YES	YES	YES
PSTN Communicator pontis	YES	YES	YES	YES	YES
Outdoor Siren imago on KS-BUS	YES - 8	YES - 8	YES - 12	YES - 12	YES - 20
Indoor Siren radius on KS-BUS	YES - 8	YES - 8	YES - 12	YES - 12	YES - 20
Terminali estraibili	NO	NO	YES	YES	YES
SOFTWARE					
Partitions	8	8	12	12	20
Programmable mode insertions	16	16	32	32	64
Timers	16	16	16	32	32
Pogrammer for daily hours	YES	YES	YES	YES	YES
User codes	16	16	48	48	128
Trasponder tags	64	64	64	128	128
Max. number of loggable events (logger)	500	500	1000	1000	1500
Number of customizable events	10	10	16	16	16
Phone numbers	20	20	50	50	100

CERTIFICATIONS

Europe CE, RoHS, EN50131-3 grade 3

PROGRAMMING

The lares Control Panels can be programmed by PC, by IP (for the version with integrated Ethernet) and directly by uploading on the USB Port

PARTS INCLUDED

Each PCBA will be delivered complete with

• 4 plastic sustainer for mounting into the metal cabinet

• 1 User Manual and Quick Reference Guide ITA/EN

OPTIONALS

Metal cabinet painted in white / KSI7402100.010
Metal cabinet painted in white with lockable door: it may contain 1 lares mother board, 1 PSTN module pontis or alternatively 1 expansion module auxi, 1 Power Supply and 1 back-up Battery of 12 Vdc/7Ah

Switching Power Supply 12V.-1,7 A / KSI7101217.000

Switching Power Supply 12V.- 3,0 A / KSI7101230.000

Lead-Battery 12 Vdc-7Ah / KSI7212070.000

we care

lares™ è stato progettato con le seguenti caratteristiche
per ridurne l'impatto ambientale:

• Assenza di PVC
• Laminati per circuiti stampati senza piombo e bromo
• Basso assorbimento
• Imballo realizzato per la maggior parte con fibre riciclate
  e materiali provenienti da fonti rinnovabili

*lares™ has been designed and manufactured for the environment as
follows:*

• *Absence of PVC*
• *PCB laminates free from Brome and Lead*
• *Low adsorbtion*
• *Packaging realized mainly with recicled fibers and materials*

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