# lares 4.0

Hybrid IoT Control Panels for Security and Home & Building Automation

lares 4.0 - 644* wls

lares 4.0 - 16

lares 4.0 - 40

lares 4.0 - 40 wls

lares 4.0 - 140 wls

CERTIFICATIONS

EN50131 Grade 3 - class II
T031:2017
SSF 1014 Larmklass 3

Secure web | App Ksenia Pro | App lares 4.0 | 5 years warranty

## lares 4.0 description

lares 4.0 control panels represent the most advanced and reliable Solution in the Digital Revolution (IoT), in terms of Physical Security (Intrusion, Video Verification, Access Control) and Home & Building Automation (lighting control, heating/air conditioning, irrigation, roller shutters, automation and load control, access control, etc.).

All the models of lares 4.0 are hybrid (wired and wireless) and have a number of outputs equal to the number of inputs for managing any type of automation. All of them can be managed by a single user APP (lares 4.0) and programmed through the Ksenia Pro installer APP installed on any mobile device, by the installer.
The Installer APP (Ksenia Pro) allows you to centralize and geolocalize all the installed panels and therefore to offer maximum assistance to the end customer by receiving push notifications also for technological alerts. In fact, by implementing a web server inside the motherboard, you do not need any program to be installed on the PC: it is possible to program the control panel, perform all the management operations available in the system through the integrated installer WEB-SERVER, connecting to the Ksenia SecureWeb cloud for the remote management and programming via mobile APP.

Regardless of the control panels size, the motherboard is native with Ethernet interface, 8 input terminals and 2 terminals that can be configured as inputs or outputs.
The control panel is available in 2 different versions: for smaller sizes the control panel has only one BUS (compatible, except for some exceptions, with all existing BUS devices that can be updated by the control panels) while for all the others it already integrates the double BUS and the 868MHz bi-directional wireless transceiver (compatible with all existing Ksenia wireless devices).

Particular attention is always put to the ease of installation and for this reason all the connection terminals are removable.
On all versions and regardless of the control unit size, the cards have an SD card slot to expand the available memory, in addition to receiving directly on board (without communication BUS to maximize the transit speed of information and data ) both the 3G module (or 4G-LTE/IP via the twin IoT communicator) and, where necessary, the PSTN module. In any case, the sending of voice messages, emails, sms, push notifications, Contact ID and SIA DC-09 level III protocol to the Surveillance Centers is guaranteed.
The control panel board can be installed inside existing metal containers of varying sizes. In addition to the control unit motherboard with its add-on modules, it allows you to allocate up to 7 expansion modules, the 18Ah back-up battery and a 50W switching power supply.

### lares 4.0 versions and characteristics

**KSI1400016.300 - lares 4.0 - 16**
up to 16 IN + 16 OUT with 6 partitions - native with Ethernet interface.

**KSI1400040.300 - lares 4.0 - 40**
up to 40 IN + 40 OUT with 12 partitions - native with Ethernet interface.

**KSI1410040.300 - lares 4.0 - 40 wls**
up to 40 IN + 40 OUT with 12 partitions native with Ethernet interface and 868 MHz bidirectional wireless (DPMS technology - Dynamic Power Management System) and double BUS on board.

**KSI1410140.300 - lares 4.0 - 140 wls**
up to 140 IN + 140 OUT with 20 partitions native with Ethernet interface and 868 MHz bidirectional wireless (DPMS technology - Dynamic Power Management System) and double BUS on board.

**KSI1410644.300 - lares 4.0 - 644* wls**
up to 644 IN + 644 OUT with 30 partitions (and beyond on specific project): native with Ethernet interface and 868 MHz bidirectional wireless (DPMS technology - Dynamic Power Management System) and double BUS on board.

**lares 4.0 - 644+ wls: for projects with a number of zones and/or outputs higher than the 644 already available, it is possible to study a customization solution.*

## Performances and capacities

The lares 4.0 control panel allows to manage parallel communications in encrypted mode at 2048bit with loading times of a few seconds, storing hundreds of screenshots from the supported IP cameras, doing the back-up of local programming on SD-card, etc.

| | |
|---|---|
| - Flash memory (space code): | 4 MB |
| - RAM: | 512 KB |
| - CPU Clock: | 240 MHz |
| - Drystone MIPS (Mln. Instr. per sec.): | 480 |
| - NOR data memory: | 32 MB |
| - NAND data memory (eMMC): | 4 GB |
| - SD card slot: | yes |

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# lares 4.0

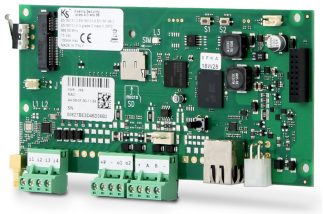
## Hybrid IoT Control Panels for Security and Home & Building Automation

lares 4.0 wls 96

**CERTIFICATIONS**

EN50131 Grade 2 - class II
T031:2017
SSF 1014 Larmklass R

Secure web | App Ksenia Pro | App lares 4.0 | 5 years warranty



**lares 4.0 wls 96 Kits**

**KSI1410096.30x - lares 4.0 wls 96 Kit**
Able to handle up to 32 wls sensors and up to 96 total zones. Possible expansion wired on BUS: up to 3 user interfaces (to choose between ergo S keypad and volo /volo-in proximity readers), 6 expansion modules (auxi, auxi-H), 1 domus to manage the thermostat functions, 2 isolators (divide, opis), 1 siren on BUS (imago or radius). Supplied with white or black polycarbonate plastic box, 25W power supply and indoor siren.

**KSI1413096.30x - lares 4.0 wls 96 Kit with 3G module**
Same functions of the model described above with the 3G module and related antenna included.

**KSI1410096.3xx - lares 4.0 wls 96 Kit with built-in keypad**
Same features of the model described above with ergo S keypad included (same colour as box).

**KSI1413096.3xx - lares 4.0 wls 96 Kit with 3G module and built-in keypad**
Same features of the model described above with the 3G module and related antenna included, ergo S keypad (same colour as box).

## lares 4.0 wls 96 description

lares 4.0 wls 96 is the expandable wireless and wired version of lares 4.0.
Identical in terms of functionality and main features, can manage 96 total zones (maximum 40 of which, can be wired), 18 outputs (maximum 16 of which, can be wireless), 5 Partitions, 4 IP video inputs.
It is distributed in kits, differentiated in content, to better meet the different needs of customers.
It is possible to choose the color of the container, as well as the ergo S keypad, among those offered.
The following table lists the different technical characteristics of all lares 4.0 models, including the lares 4.0 wls 96.

## Technical characteristics

| lares 4.0 | wls 96 | 16 | 40 | 40 wls | 140 wls | 644 wls |
|---|---|---|---|---|---|---|
| | | | | | | |
| Power supply voltage | 230 V~ -15/+10% 50 Hz 0.4A | | | 230 V~ -15/+10% 50 Hz 0.8A | | |
| Power Supply Battery Charger (Type A norm EN50131-6) | 15V ± 1% 1.7A | | 15V ± 1% 3.5A | | | |
| Current consumption (med./stand-by) | 50mA | 40mA | 40mA | 60mA | 60mA | 60mA |
| Current consumption max | 80mA | 70mA | 70mA | 100mA | 100mA | 100mA |
| Maximum current available for powering optional moduls and external devices | 160 mA grado 2 | 580 mA grade 2<br>230 mA grade 3 | | 1500 mA grade 2<br>600 mA grade 3 | | |
| Max. output voltage ripple | 120 mV | | | | | |
| Max. current for battery charging | 800 mA | | | | | |
| Maximum battery recharge time to 80% | 3 h | 10 h | | 24 h | | |
| Deep discharge voltage protection | 10 V | | | | | |
| Low battery threshold (restore) | <11 V (13 V) | | | | | |
| Low voltage threshold | 12 V<br>*Voltage below which the power supply output fault is signaled* | | | | | |
| Allocable batteries | 2Ah | 7Ah | | 18Ah | | |
| Maximum number of inputs | 96 | 16 | 40 | | 140 | 644 |
| Inputs on board | 4 | 8 | 8 | | 8 | 8 |
| Maximum number of OC outputs + relays | 18 | 16 | 40 | | 140 | 644 |
| Ethernet connectivity management | YES | | | | | |
| Power supply fault detection | YES | | | | | |
| Over voltage protection | YES (17 V) | | | | | |
| Combinations of Digital Key | More than 4 billions | | | | | |
| Alarm transmission system | SP2, DP1, SP4, DP3 | | | | | |
| Time for generation and transmission of alarm messages | 3 sec. | | | | | |
| Time for detection and presentation failures | 10 sec. | | | | | |
| Protection class | IP 34 | | | | | |
| Security grade | 2 | 3 | | | | |
| Environmental class | II | | | | | |
| Isolation class | I | | | | | |
| Overall dimensions (wxhxd) | 297x222x58 mm | 255x295x80mm - 325x400x90 mm - 325x440x90 mm | | | | |
| Weight (with battery) | 2.3 Kg (4.5 Kg) | | 4.2 Kg (10 Kg) | | | |
| Operating range | +5 / +40 °C | | | | | |
| Humidity (not condensed) | 95 % | | | | | |

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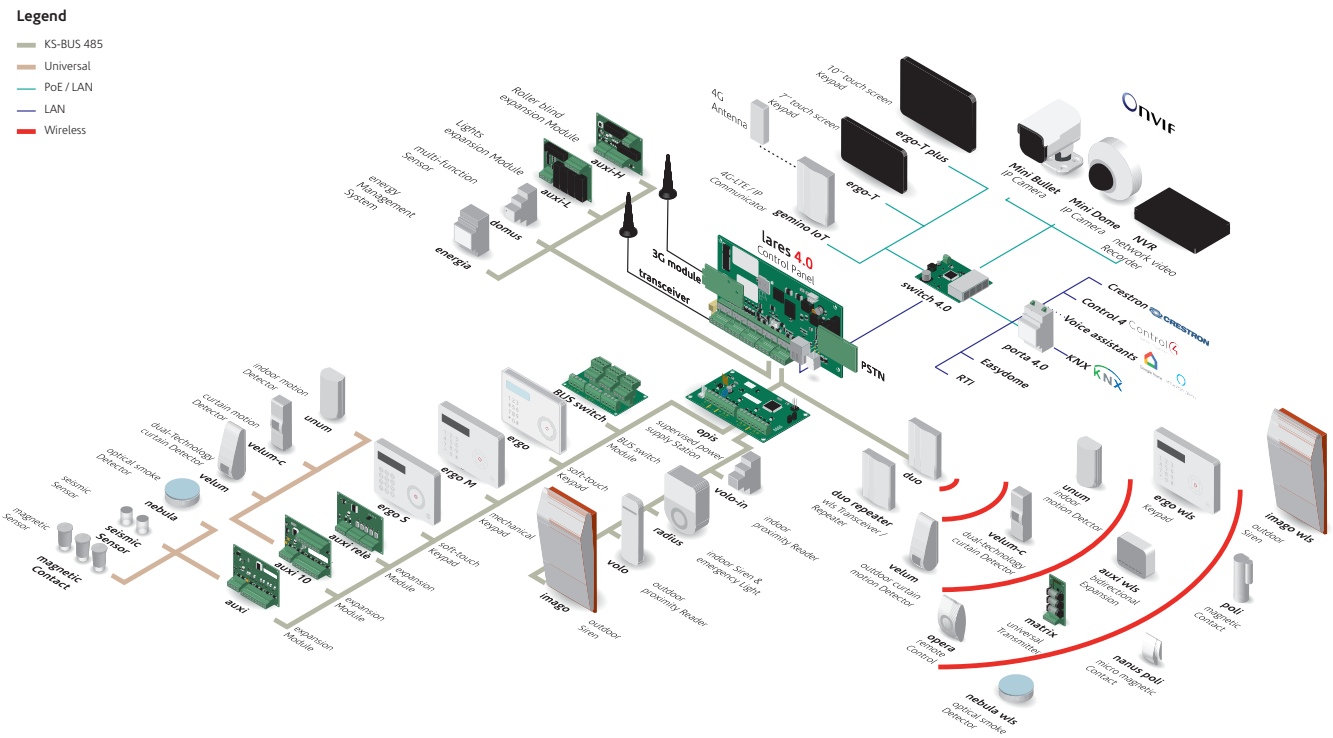
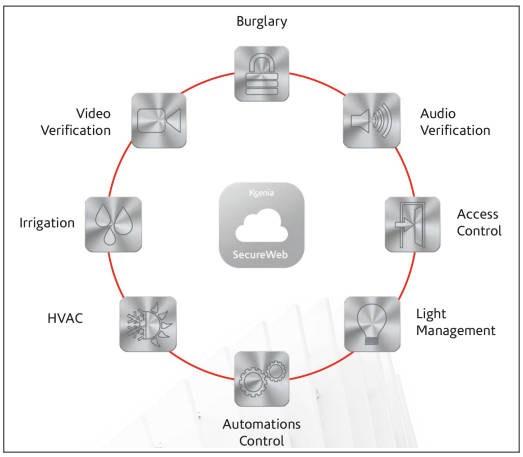
## lares 4.0 control panel and its peripherals

## FULL INSTALLATION CHART




## Main features




### SECURITY/Burglary

- KS-BUS interface
- Communication Add-On
- 4Gb memory (possibility to expand the capacity through the special SD card slot) to save programming data, event logs, updated device firmware, screenshots of IP cameras
- Power control: it monitors both the external power supply voltage and the battery voltage
- Ethernet connectivity
- ONVIF compatibility
- KONNEX compatible through the device porta 4.0
- Fully integrated with Control4 and Creston world through the development of proprietary drivers
- Up to 30 partitions available
- Unlimited virtual voice messages, generated by a text-to-speech (TTS) synthesis engine available thanks to the Loquendo® libraries of Nuance Communication
- Programmable logics to put together hundreds of different events and arrange them with AND/OR operators with the purpose to satisfy any request received from the customers
- Time scheduler for automatic processes
- Video verification
- #Hashtag: tool of work when you need to implement replicated programming. They are simply lables which allow to operate on several homogeneous objects at the same time
- Firmware update remotely with automatic download by the control panel, without the need to restart the control panel itself or any devices.
- Backwards compatible firmware
- Compatibility with future devices, simply by updating the firmware of control panel.

### SMART-HOME/Home automation

- Lighting
- Heating / air conditioning systems
- Irrigation systems
- Roller blinds
- Load control/Access control
- Rooms/Maps: each device that has been programmed on the system (sensors, outputs, cameras, etc.) can be combined with one or more rooms and an image to each room.
- Voice assistants: integration with Google Home & Amazon Alexa for managing Smart devices through a simple voice command.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Ksenia security innovation

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## Main features

| lares 4.0 | wls 96 | 16 | 40 | 40 wls | 140 wls | 644 wls |
|---|---|---|---|---|---|---|
| **Zone Management** | | | | | | |
| Number of zones (of which radio) | 96 (96) | 16 (16) | 40 (40) | 40 (40) | 140 (64) | 644 (64) |
| Number of customized balancing | 1 | 2 | 4 | 4 | 14 | 64 |
| **Outputs management** | | | | | | |
| Number of outputs (of which radio) | 18 (16) | 16 (16) | 40 (40) | 40 (40) | 140 (128) | 644 (128) |
| Virtual Output (timer software) | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| **Motherboard / Software** | | | | | | |
| Programmable inputs/outputs | 2(only outputs) | 2 | 2 | 2 | 2 | 2 |
| Inputs | 4 | 8 | 8 | 8 | 8 | 8 |
| On board 868MHz radio interface | ✓ | - | - | ✓ | ✓ | ✓ |
| On board BUS | 1 | 1 | 1 | 2 | 2 | 2 |
| Siren connector on board | ✓ | - | - | - | - | - |
| Number of partitions | 5 | 6 | 12 | 12 | 20 | 30 |
| Number of arming modes | 8 | 8 | 32 | 32 | 64 | 128 |
| Number of #hashtag | 2 | 2 | 12 | 12 | 20 | 64 |
| Number of rooms | 8 | 12 | 24 | 48 | 64 | 128 |
| Timer numbers of time scheduler | 4 | 8 | 64 | 64 | 64 | 128 |
| Number of stored events | 1500 | 1500 | 1500 | 5000 | 10000 | 10000 |
| Number of manageable users | 16 | 16 | 64 | 128 | 512 | 1024 |
| Number of programmable scenarios | 8 | 8 | 32 | 32 | 128 | 512 |
| Number of event groups to which associate the scenario | 32 | 32 | 64 | 64 | 256 | 1024 |
| Thermostat | 1 | - | 8 | 8 | 24 | 40 |
| **IP Peripherals** | | | | | | |
| Number of IP cameras | 4 | 4 | 12 | 12 | 20 | 30 |
| ergo-T /ergo-T plus | 1 | 2 | 4 | 4 | 8 | 15 |
| gemino IoT | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| porta 4.0 | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| **BUS Management** | | | | | | |
| User interfaces (ergo, ergo S, ergo M, volo, volo-in) | 3 | 6 | 24 | 24 | 40 | 64 |
| Expansion module (auxi, auxi relè, auxi 10in, auxi-L) | 6 (**) | 4 | 24 | 24 | 64 | 250 |
| Expansion module auxi-H | ✓ | - | ✓ | ✓ | ✓ | ✓ |
| opis / divide | 2 | 4 | 12 | 12 | 20 | 32 |
| duo BUS (64 peripherals) | - | 2 | 2 | 1 (2)* | 1 (2)* | 1 (2)* |
| Sirens (indoor and outdoor) | 1 | 6 | 24 | 24 | 40 | 64 |
| domus modules | 1 | - | 8 | 8 | 32 | 64 |
| **Wireless** | | | | | | |
| Wireless sensor (poli, nanus, unum, velum, nebula) | 32 | 16 | 40 | 40 | 64 | 64 |
| imago wireless siren | 3 | 3 | 3 | 3 | 5 | 5 |
| Opera remote control | 16 | 16 | 64 | 64 | 64 | 64 |
| duo repeater | 2 | 2 | 2 | 2 | 2 | 2 |
| auxi wireless I/O | 8 | 8 | 20 | 20 | 64 | 64 |
| ergo wireless | 4 | 2 | 3 | 3 | 4 | 4 |
| **Notifications management** | | | | | | |
| Number of contact lists | 8 | 8 | 8 | 8 | 16 | 32 |
| Number of contacts for each list | 8 | 8 | 8 | 8 | 8 | 8 |
| Number of events groups to which associate a list of contacts | 16 | 16 | 32 | 32 | 64 | 128 |
| Sia-IP couples of receivers | 1 | 1 | 3 | 3 | 3 | 3 |
| Contact-IP couples of receivers | 1 | 1 | 3 | 3 | 3 | 3 |
| (*) If the Motherboard is already having the radio interface “onboard”, just n.1 “duo BUS” can be added. | | | | | | |
| (**) Only auxi and auxi-H modules expansions (not auxi relè, auxi 10in, auxi-L) | | | | | | |

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