

### 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.

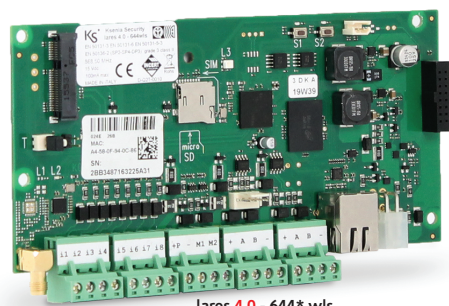
Regardless of the control panels size, the motherboard is native with Ethernet interface, 8 input terminals and 2 terminals that can be configured as inputs or outputs.

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 - 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 Larmclass 3



Secure web



App Ksenia Pro



App lares 4.0



5 years warranty

#### lares 4.0 versions and characteristics

##### KS11400016.300 - lares 4.0 - 16

up to 16 IN + 16 OUT with 6 partitions - native with Ethernet interface.

##### KS11400040.300 - lares 4.0 - 40

up to 40 IN + 40 OUT with 12 partitions - native with Ethernet interface.

##### KS11410040.300 - 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.

##### KS11410140.300 - 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.

##### KS11410644.300 - 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

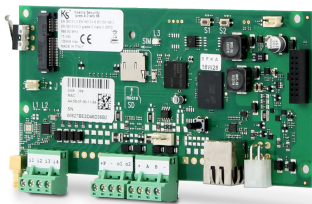
## Hybrid IoT Control Panels for Security and Home & Building Automation



lares 4.0 wls 96

### CERTIFICATIONS

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



### lares 4.0 wls 96 Kits

#### KS11410096.30x - lares 4.0 wls 96 Kit

It is able to manage up to 32 radio peripherals and up to 96 wireless zones. It is possible an essential BUS-based expansion: up to 3 user interfaces (a choice among ergo keyboard, volo and volo-in proximity readers), 1 BUS siren (imago or radius), 1 domus to manage the functions of chronothermostat. lares 4.0 wls 96 with white or black polycarbonate box and 1.7A power supply.

#### KS11413096.30x - lares 4.0 wls 96 Kit

It is able to manage up to 32 radio peripherals and up to 96 wireless zones. It is possible an essential BUS-based expansion: up to 3 user interfaces (a choice among ergo keyboard, volo and volo-in proximity readers), 1 BUS siren (imago or radius), 1 domus to manage the functions of chronothermostat. lares 4.0 wls 96 with white or black polycarbonate box, 1.7A power supply and 3G module.

#### KS11410096.3xx - lares 4.0 wls 96 Kit

It is able to manage up to 32 radio peripherals and up to 96 wireless zones. It is possible an essential BUS-based expansion: up to 3 user interfaces (a choice among ergo keyboard, volo and volo-in proximity readers), 1 BUS siren (imago or radius), 1 domus to manage the functions of chronothermostat. lares 4.0 wls 96 with white or black polycarbonate box, 1.7A power supply and ergo S (same colour as the box).

#### KS11413096.3xx - lares 4.0 wls 96 Kit

It is able to manage up to 32 radio peripherals and up to 96 wireless zones. It is possible an essential BUS-based expansion: up to 3 user interfaces (a choice among ergo keyboard, volo and volo-in proximity readers), 1 BUS siren (imago or radius), 1 domus to manage the functions of chronothermostat. lares 4.0 wls 96 with white or black polycarbonate box, 1.7A power supply, ergo S (same colour as the box) and 3G module.

### lares 4.0 wls 96 description

lares 4.0 wls 96 is the full wireless version of lares 4.0.

Identical in terms of functionality and main features, it differs from other models for being completely wireless. 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

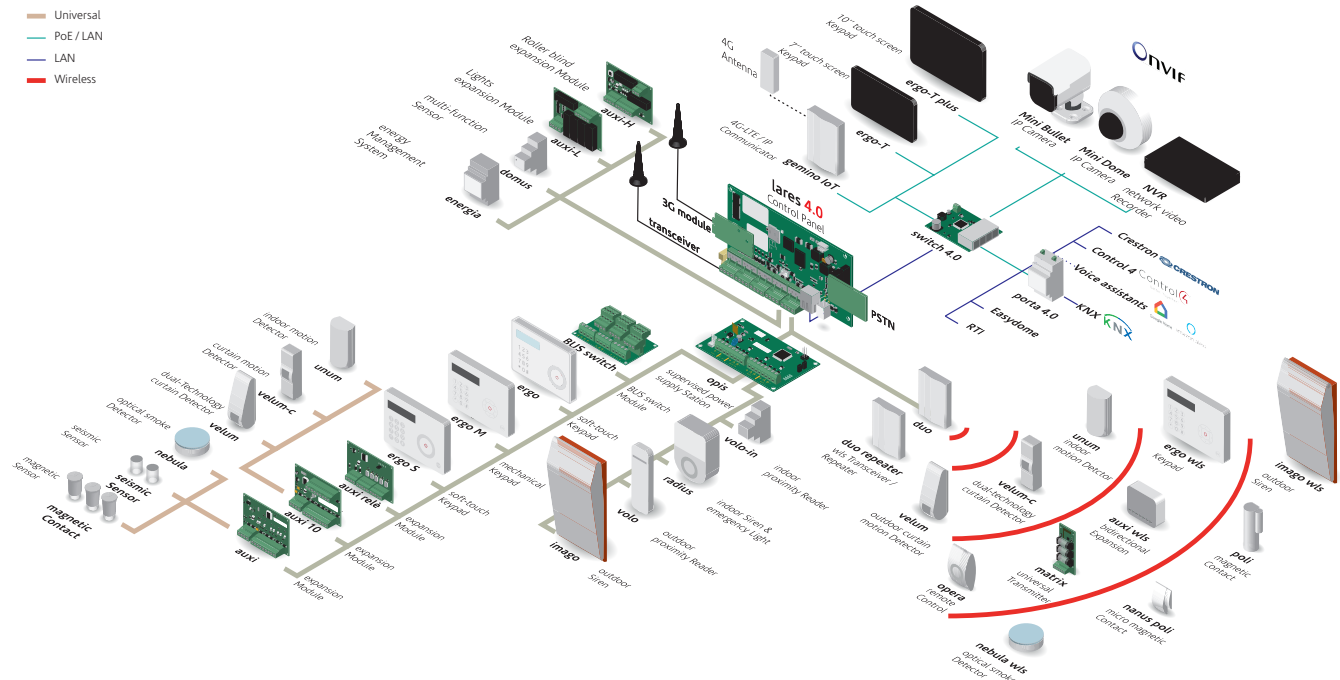
lares 4.0	wls 96	16	40	40 wls	140 wls	644 wls
Power supply voltage	230 V~ -15/+10% 50 Hz 0.4A			230 V~ -15/+10% 50 Hz 0.8A		
Power Supply Battery Charger (Type A norm EN50131-6)	15V ± 1% 1.7A			15V ± 1% 3.5A		
Current consumption (med./stand-by)	50mA	40mA	40mA	60mA	60mA	60mA
Current consumption max	80mA	70mA	70mA	100mA	100mA	100mA
Maximum current available for powering optional moduls and external devices	160 mA grado 2	580 mA grade 2 230 mA grade 3		1500 mA grade 2 600 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 <i>Voltage below which the power supply output fault is signaled</i>					
Allocable batteries	2Ah	7Ah		18Ah		
Maximum number of inputs	4+32*3	16	40	140	644	
Inputs on board	4	8	8	8	8	
Maximum number of OC outputs + relays	2+8*2	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 %					

### lares 4.0 control panel and its peripherals

## FULL INSTALLATION CHART

#### Legend

- KS-BUS 485
- Universal
- PoE / LAN
- LAN
- Wireless



### Main features

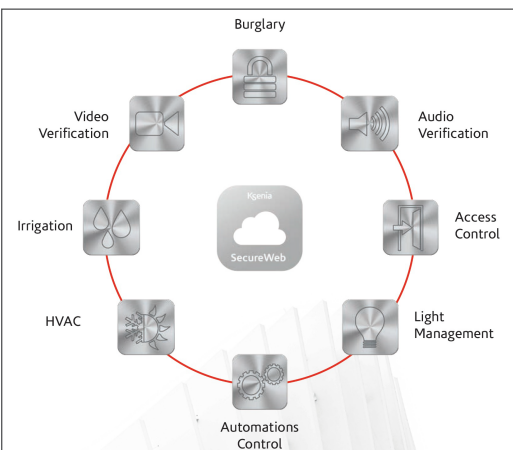
#### SECURITY/Burglary

- 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 labels 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.



### Main features

lares 4.0	wls 96	16	40	40 wls	140 wls	644 wls
<b>Zone Management</b>						
Number of zones (of which radio)	100 (96)	16 (16)	40 (40)	40 (40)	140 (40)	644 (64)
Number of customized balancing	1	2	4	4	14	64
<b>Outputs management</b>						
Number of outputs (of which radio)	18 (16)	16 (16)	40 (40)	40 (40)	140 (128)	644 (128)
Virtual Output (timer software)	✓	✓	✓	✓	✓	✓
<b>Motherboard / Software</b>						
1. Programmable inputs/outputs	2(outputs)	2	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
#Hashtag numbers	2	2	12	12	20	64
Rooms numbers	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 events groupings to which associate the scenarios	32	32	64	64	256	1024
Thermostat	1	-	8	8	24	40
Number of IP cameras	4	4	12	12	20	30
ergo-T / ergo-T plus keypads	1	2	4	4	8	15
<b>BUS management</b>						
User Interfaces (ergo, ergo S, ergo M, volo and volo-in)	3	6	24	24	40	64
Expansion Module (auxi, auxi relè, auxi 10in, auxi-L)	-	4	24	24	64	250
Expansion Module auxi-H	-	-	✓	✓	✓	✓
opis / divide	-	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 moduls	1	-	8	8	32	64
<b>Wireless</b>						
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
Ripetitore duo	2	2	2	2	2	2
auxi wireless I/O	8	8	20	20	64	64
ergo wireless	4	2	3	3	4	4
<b>Notifications management</b>						
Number of contact lists	8	8	8	8	16	32
Number of contacts for each list	8	8	8	8	8	8
Number of event 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
<b>Central Panel Hardware</b>						
Power supply voltage	15 Vcc ± 1%					
Power Consumption (max)	100mA					
Temperature range	+5 °C / +40 °C 23 °F / 131 °F					
Degree of protection IP	IP34					

(\*) If the Motherboard is already having the wls "onboard", n.1 "duo BUS" can be added.